Addressing the Summer Learning Gap Among Children with Reading Difficulties

by

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A thesis
submitted in partial fulfillment
of the requirements for the degree of
Master of Arts

Faculty of Social Science
BROCK UNIVERSITY
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Abstract

This study explored literacy change and development in children with reading difficulties over the summer months. More specifically, a summer literacy program called S.L.A.M., offered by the Learning Disabilities Association of the Niagara Region, was examined. A multi-lens approach was used to examine the efficacy of the summer literacy program, and the contextual factors associated with its success and the children's overall success in the program. Fifteen children, ages 6-10, were administered a series of reading-based measures, while facilitators involved with the program's implementation were interviewed in focus groups, and a daily field journal was maintained by the program Head Facilitator. Results of the study indicated that literacy intervention during the summer months can help to alleviate the summer learning loss and support further literacy development in vulnerable readers. Such findings hold important implications for policy and practice surrounding models of schooling and programming that support children's learning yearlong.

Acknowledgements

I am grateful to all those who have offered their support and guidance throughout this process.

I would like to first thank my advisor and mentor, Dr. John McNamara. Your leadership, encouragement and continued support have allowed me to step outside my comfort zone, and pursue a research path that I would not have otherwise followed. Thank you for your time, guidance and enthusiasm over the last several years.

I would also like to express my gratitude to my committee members, Dr. Thomas O'Neill and Katie Jacobs, for offering your expertise and on-going encouragement through this process. Additionally, I would like to thank my external committee member, Dr. Tiffany Gallagher, for your thought-provoking questions and thorough review of my work.

To my family, your unwavering support through this journey has been vital. Your interest, encouragement, and confidence in my abilities have kept me going. You have always pushed me to reach my goals, and I am forever grateful.

Finally, to Aaron, thank you for pushing me to strive for excellence, and continuing to support me in everything that I take on. You have been by my side as I have navigated through this process, and continue to encourage and challenge me each day.

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CHAPTER ONE: INTRODUCTION

Research has emphasized a reoccurring challenge that children face during the summer vacation period. Research has demonstrated that the summer learning gap created by the 8-9 weeks of summer vacation from school can result in children losing academic knowledge and skills that they gained in their previous school year (Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996). For children with learning disabilities (LD), this learning gap has shown to be particularly problematic (Menard & Wilson, 2014). In fact, research has found that children with LD demonstrate significant regression in reading scores over the summer months. As such, there is a need for effective summer programming for children with LD.

In 1996, Cooper et al. showcased the severity of the summer learning gap in a research review, revealing that the equivalent of approximately one month of schooling is lost in academic knowledge and skills during the summer months while children are not in school. Since then, several studies have been conducted examining the effects of summer vacation on student learning, and research has consistently demonstrated the academic losses that results from summer vacation. More recently, Mendard and Wilson (2014) examined the impact that summer vacation has for children with LD by conducting a comparative study involving students with and without reading disabilities. This research specifically focused on the loss that occurs in academic knowledge and skills during the summer months, and findings elucidated a significant regression in reading skills for those children with reading disabilities. Following such research, it becomes important

to not only further explore the summer learning gap, but also examine the effects that a literacy intervention program can have for children with LD during the summer.

The Ontario Government provides guidelines to the school boards each year, highlighting school holidays and the number of school days available per year (Ministry of Education, 2016). Using this information, school board officials are required to prepare a school year calendar and submit it to the Ministry of Education for approval. Among these guidelines, the government indicates that the regular school year period must fall between September 1 and June 30, leaving an 8-9 week summer vacation period during July and August. Although many look forward to these 8-9 weeks of vacation from school, the calendar creates setbacks for countless students upon returning to school in September (Cooper et al., 1996). Such academic setbacks due to the summer vacation are referred to as the summer learning gap and have a particularly strong impact on children with LD.

The Learning Disabilities Association of the Niagara Region (LDANR), a non-profit organization based in Niagara, has recognized this gap by designing and implementing a unique summer literacy program focused at addressing the needs of vulnerable readers and supporting their continued literacy success throughout the summer months. This summer literacy program is called S.L.A.M. (Sunshine, Learning, Achievement, and More) and is offered at three locations throughout the Niagara Region over the course of the summer, in an effort to reduce the effects of the summer learning loss phenomenon. The S.L.A.M.

program runs weekly for a total of seven weeks throughout the summer, and children can choose to enroll in the program for anywhere from one to seven weeks.

The primary goal of this study was to examine the efficacy of a summer literacy program, S.L.A.M., which provides continued literacy support for vulnerable readers, ages six to ten, during the summer months. In an effort to support a comprehensive view of the S.L.A.M. program, the study was conducted using a mixed-methodological approach. Program efficacy was assessed quantitatively using standardized reading assessments that measured the children's abilities and progress in component literacy areas – including sight word vocabulary, phonics, phonemic awareness, fluency, and comprehension. The current study also sought to explore the contextual factors related to children's experience and success in a summer literacy program. Through focus groups and a daily field journal, observations on such factors were documented. This included the type of learning environment that best supported each child, motivational factors tied to the children's literacy engagement, behavioural considerations, and program absences. A partnership between researchers at Brock University and the Learning Disabilities Association of the Niagara Region was also formed for the current study.

In general, it was hypothesized that the data collected in this study would show that as a result of participating in the S.L.A.M. program, children would demonstrate significant increases in literacy scores. Furthermore, it was hypothesized that as a result of participating in the program, September

assessments would reflect a maintenance or increase in children's literacy scores as measured at the beginning of the program. Finally, it was hypothesized that children's motivation and program engagement would be reflected in their overall program success.

CHAPTER TWO: REVIEW OF THE LITERATURE

A Historical Perspective

An overview of the history behind summer vacation in rural and urban communities will provide a foundation to explore how the two-month summer vacation period emerged, resulting in the learning loss phenomenon currently impacting children's literacy achievement. It is important to note that the vast majority of research in this area is American. There is very little research, if any, that exists around Canadian schools and the summer learning loss phenomenon. This points to the need for further exploration and research into the effects of the summer learning gap among children in Canada.

Rural communities. Contrary to popular belief, summer vacation was not always a component of schooling (Gold, 2002). In fact, in the nineteenth century, most schools were in session during the summer term while closing in spring and autumn. Many factors influenced the structure of the school calendar in rural areas, including weather conditions, agricultural responsibilities, and economic conditions. Agrarian conditions were often reflected in the school calendar, with schools in rural communities closing during spring plantings and fall harvests. Meanwhile, some areas only held school during the warmest portion of the year to make for easier transportation. The length of each term was also determined on the economic standing of the community, with rural community schooling lasting anywhere from three to seven months.

The process of shifting the school calendar began when a school reform movement pushed for an extended, standardized school year (Gold, 2002). One tactic employed to encourage change was the implementation of a minimum school session duration and attendance level to receive state funding support. City growth, structural road improvements, changes in rural labour practices, and government campaigns also contributed to the emergence of summer vacation. Soon, schools adopted a three term calendar which generally overlapped with the fall, winter, and spring seasons, and by the twentieth century the standard 180-day school calendar was in place across rural areas.

Urban communities. Urban communities experienced the same result; however while rural areas reached the 180-day school year by adding days to their school calendar, urban communities actually lessened their school calendar (Gold, 2002). In the past, urban schools were typically in sessions for forty-eight weeks per year, with one week of vacation following the end of each of the four terms. As time progressed, this vacation period grew, resulting in what we now recognize as the summer vacation period.

As suggested by Gold (2002), the implementation of summer vacation into the school calendar in urban areas was a result of several coinciding factors including: traditional social norms, economic and demographic conditions, administrative obligations, and financial considerations. For instance, as cities grew, they required more space to house students, resulting in construction during the favourable summer months, leaving empty school buildings throughout the summer. Moreover, it was proposed that the epidemics in New York, which

caused numerous schools closures, might have played a role in the emergence of the summer vacation period, as the summers of 1832 and 1849 hosted many outbreaks of cholera. Finally, it was suggested that the decision to close schools for the summer was also financially driven, with hopes of decreasing school spending during the summer months. Eventually, after several readjustments, what emerged from policy makers was a 40-week school year with short breaks in the winter and fall, and an eight-week break in July and August.

Through this historical perspective, the emergence of summer vacation is depicted; however, the emergence of the modern school calendar brings with it new challenges – including the summer learning gap. The summer learning gap, also known as the summer learning loss phenomenon, is based on the idea that instruction is most successful when it is continuous, implying that a break in school during the summer is detrimental to learning (Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996). A number of studies centered on the summer learning loss phenomenon have provided evidence that suggests that children are losing academic knowledge and skills over the summer months while they are not in school.

The Summer Learning Gap Defined

According to Menard and Wilson (2014), the summer learning loss results from the 8-9 weeks of summer vacation from school, generating a loss in children's academic knowledge and skills that were gained in their previous school year. A research review conducted by Cooper et al. (1996) demonstrated a

decline in student achievement test scores during the summer months. Using 13 of the 39 studies from the review, Cooper et al. conducted a meta-analysis in which they were able to conclude that the summer vacation was responsible for academic losses equivalent to that of one month of schooling, using a grade level equivalent scale. Within these findings, the analysis showed the greatest loss in the areas of math and spelling. This research introduces the 8-9 weeks of vacation in the summer as a period of learning loss for children and calls for further attention to the effect that a break from school during the summer has on student achievement.

The Importance of Summer Learning

Several studies have been conducted which highlight the gap in students' education during the summer. Research in the area of summer learning is mostly focused on socioeconomic status (SES); however, these studies offer a foundation in the importance of summer learning for children. Allington and McGill-Franzen (2003) examined a collection of research on the impact of summer reading scores as a result of the summer learning gap. From this research, they gathered that setbacks in summer learning vary depending on socioeconomic status, indicating that children from low SES families experience a greater decline in reading achievement over the summer than those from higher SES families.

A study on the seasonality of school achievement and inequality by Alexander, Entwisle, and Olson (2001) presented interesting information on summer learning. The study included participants from a representative panel of

Baltimore school children and used descriptive analyses and HLM within-person growth models to examine the effects of summer vacation across social lines. The study revealed that the achievement gap in student scores was linked to the non-school environment, which children are most exposed to during the summer. In fact, the achievement scores for upper and lower SES children remained similar during the school year, while the gap between them widened during the summer. These results point to the power that schools have in lessening the learning gap, as well as the detrimental effect that a long summer vacation has on student achievement.

Alexander, Entwisle, and Olson (2007) conducted a later study examining the lasting consequences of the summer learning gap, particularly focused on the long-term effects of summer vacation on achievement of children from varying socioeconomic conditions. For this study, data from the Baltimore Beginning School Study youth panel was used and achievement scores reaching from the beginning of high school back to Grade 1 were examined. A traceable link was found, suggesting that the gap between high SES and low SES student achievement scores was caused by different learning experiences over the summer months. Higher SES students experienced family and community environments that provided academic enrichment that sustained their knowledge and skills over the summer. This study also highlights the possible repercussions that vulnerable children may experience as a result of the summer vacation.

Research has consistently demonstrated the summer vacation period as one that can negatively impact student achievement, particularly for those with

lower economic statuses. Kim (2004) aimed to address this dilemma with a measure of summer book reading. The conducted study examined whether reading books during the summer would have an effect on students' reading proficiency in the fall. Specifically, to address the links between achievement loss, SES, and ethnicity, the study focused on elementary children who came from low- and middle-income families and included samples from White, Black, Latino, and Asian ethnic groups. The findings of the study supported previous research, indicating that the volume of books read during the summer was positively related to reading achievement during the fall. Students who read more books (4-5 books) achieved higher scores than those who read three or less books. In addition, the results of the study pointed to the positive association between access to books and the volume of books read, suggesting that increased access to books over the summer can increase the amount of books that children engage with. As such, students who do not have adequate access to reading materials might engage in less reading and therefore experience lower achievement scores. Most interestingly, Kim found that the positive results from summer reading were consistent across all four ethnic groups that were examined. The findings of this study are consistent with other research highlighting the importance of learning in the summer. In particular, this research demonstrates the important link between access to reading material, volume of books read, and reading achievement scores.

Research has elucidated that children's low socioeconomic status, in combination with the summer vacation, can result in the loss of academic

knowledge and skills; however, recent research has also demonstrated the effects of summer vacation on academic achievement for children of similar SES. Downey, Hippel, and Broh (2004) examine the effects that summer vacation (non-school time) has on achievement scores in reading and math using The Early Childhood Longitudinal Study – Kindergarten Cohort of 1998-99 (ECLS-K). The ECLS-K is a national survey of approximately 20,000 children in 1,000 schools that followed the children beginning in the fall of 1998 and assessed students' in math and reading both in the spring and the fall of their kindergarten year and again in their first grade year (four times total). The results of the study indicated that SES did impact variation in learning rates; however, these factors were responsible for only 1-8 percent of the cognitive inequality observed, and researchers found that race and gender did not have a significant impact inequality in student reading and mathematics achievement during the summer months. The remaining 92-99 percent of the variation in learning rates was found in children of similar race, gender and SES. Of primary importance, Downey et al. (2004) found that this inequality was reduced during in-school time, suggesting that not only does in-school time reduce cognitive inequality among students of different SES and race, but it also reduces inequality between students of similar SES and race. Overall, these findings highlight the developmental continuity between children's literacy skills from the spring to the fall.

The importance of summer learning cannot be overstated. The research clearly demonstrates that children's academic knowledge and skills are impacted during the break from school over the summer. This holds especially true for the

vulnerable reader population, and highlights the careful consideration that must be taken for children with reading disabilities in the summer.

Vulnerable Readers

The learning loss phenomenon that occurs over the summer vacation period has shown to be particularly problematic for children with LD (Menard & Wilson, 2014). This can be explained by the struggle that individuals with reading disabilities (RD) experience with grasping fundamental reading skills, in comparison to their non-RD peers (Fletcher, Lyon, Fuchs & Barnes, 2007). Considering the greater difficulty in reading experienced during the school year, it is easy to imagine how the two month summer break could increase the struggle for children with RD.

Early research introduces the effects of summer vacation on the reading achievement of students with LD (Cornelius & Semmel, 1982). Upon conducting ten comparative pre- and post-tests using the Slosson Oral Reading tests on sixty students (Grades 3 to 8) with learning disabilities, researchers found that students with LD regress in reading skills during the summer break from school. The study included participants that were divided among three groups based on the intervention that they received. Students were either placed in a reading program during the first five weeks of the summer (15 participants), a reading program during the last five weeks of the summer (15 participants), or no reading intervention program at all (30 participants). Several interesting findings emerged from this study. First, results confirmed that if no reading instruction is received

over the summer, students with LD experience a regression in reading skills. In addition to this, the findings of this study suggest that the most regression of reading skills occurs during the beginning of the summer, because the regression of the control group equated the regression of the group who participated in the last five weeks of summer programming. However, the results also indicated that a five-week summer reading program helps to lessen such regression, because the group who regressed was able to regain their reading skills during their five-week intervention program following their break from school. Finally, the results indicated that students who participated in the intervention during the first five weeks of summer did not experience significant regression in reading scores. The findings of this study highlight the effects that the summer vacation period can have on vulnerable readers and enforces the need for effective summer intervention programs.

More recent research also reveals the effects of the summer learning gap on vulnerable readers. Specifically, these effects are demonstrated through a randomized field trial of 552 fourth grade students in ten schools who participated in a voluntary summer reading intervention program (Kim, 2006). The students were first enrolled in reading lessons during the final month of school before the summer, and then subsequent reading material was mailed to the students biweekly over the course of the summer. Students were given eight books to read during July and August, while also receiving teacher encouragement to engage in oral reading and utilize comprehension strategies both with a family member and independently. The findings of the reading achievement test showed that students

who were less fluent readers or reported owning few children's books experienced the largest gains from participating in the reading program. These findings support the link between reading outside of the school environment and reading achievement, particularly highlighting the benefits of a summer program for vulnerable readers.

In a 2003 report for LD online (Cooper), the summer learning gap was discussed. The report emphasized some of the key concerns that are raised in regard to achievement and summer vacation. Of these concerns, the greater negative effect of summer vacation on children with special education needs was stressed, with a focus on the positive benefits that children with disabilities would reap from a summer intervention program. Graham, McNamara, and Van Lankveld (2011) support these ideas in their research on summer programming for vulnerable readers. The study examined a summer literacy program for kindergarten children at-risk for reading difficulties and included 14 four-year-old children who had been previously identified by a classroom teacher as being at risk for reading difficulties. Their literacy-based needs were further confirmed using various assessments. A five-week summer literacy program was put in place for the children and their primary caregiver, which included literacy-focused activities for both the children and caregivers. The families attended the program twice a week for two-hour instructional sessions. The three essential skills that were focused on in the program included print awareness, phoneme awareness, and letter-sound knowledge. These skills were integrated into activities that allowed the children and caregivers to work individually and together. Children

who enrolled in the program were at risk for experiencing decreases in literacy skills as a result of the summer learning gap, but by participating in the program, significant gains in all literacy components were experienced by the children. In essence, the potential positive impact of a summer literacy program in lessening the summer learning gap for vulnerable readers was introduced in this research.

There is little research that investigates how the summer vacation directly impacts students with reading disabilities. Recently, Menard and Wilson (2014) addressed this gap in research by conducting a comparative study involving students with and without RD and assessing their reading skills over the summer. For the purpose of this study, there was no intervention program, but simply a comparison on how the vacation period affected each group (RD and non-RD). For the study, Menard and Wilson divided participants into two groups – a group of 30 students with RD and a group of 30 average readers. The students were assessed on their literacy skills before and after the summer vacation, specifically targeting reading achievement, phonological processing, and oral receptive vocabulary. As expected, the findings indicated a significant regression in the scores of students with reading disabilities, particularly on sight word reading speed, speeded phonological decoding, and untimed sight word reading – all literacy areas which require automatic reading skills. On the other hand, the comparison group experienced an increase or no change on all measures. The findings of this study clearly demonstrate the negative effect of the summer learning gap on individuals with RD. Moreover, these results point to the significant need for a literacy intervention program during the summer.

Effective Intervention

Proposed solutions. As explained by Cooper (2003), three potential solutions often present themselves when exploring problems related to the summer learning loss: (1) an extended school year, (2) summer school, or (3) a modified school calendar. While each of these possibilities offers a unique approach to adjusting the traditional school year calendar, they are also accompanied by their own restrictions and considerations. For instance, the greatest argument made for extending the school year is through a comparison of Canadian or US schools to education in other countries. The National Education Commission on Time and Learning (1993) indicated that most students in the United States are in school around 170-185 days per year, in comparison to those in Japan who are in school for closer to 240 days per year. However, this argument is countered by considering that an extended school year would also require shifts in teaching and curriculum in order to truly be effective (Cooper, 2003). Similarly, a modified school calendar is a second proposed solution to combat the summer learning loss phenomenon. In this case, the number of days spent in school are not increased, but rather dispersed differently throughout the year (Cooper, 2003). However, research by Cooper, Valentine, Charlton, and Melson (2003) exploring the effects of modified calendars on students in Grades K-12, found limited evidence in the benefits of this approach, and the results of their study showed a very small effect of modified calendars on student achievement in comparison with other educational interventions. Summer school is the third and final proposed solution to the summer learning loss (Cooper,

2003). A meta-analysis and narrative procedures were used to conduct a research synthesis to examine 93 evaluations of summer school (Cooper, Charlton, Valentine, Muhlenbruck, & Borman, 2000). Results indicated that remedial, accelerated, or enriched summer programs produced positive results; and a small program size and individual instructional approaches produced greater positive effects. These results demonstrate the positive effect that summer programming can have, when structured in a particular way. As such, based on the discussion of the above three approaches, summer intervention programs emerge as the most suitable form of intervention to address the summer learning gap in vulnerable readers.

Embedded-explicit instruction. According to Foorman and Torgesen (2001), effective intervention for vulnerable readers must be more explicit, comprehensive, and intensive than the literacy instruction offered to their grade-level peers. Explicit literacy intervention focuses on enhancing basic skill units, with adults directing the learning focus on sequenced instructional opportunities that include adult modeling and guidance (Justice & Kaderavek, 2004). Unlike their peers, vulnerable readers do not generate conclusions about literary relationships and acquire new word-specific knowledge while reading. In comparison to their grade-level peers, students who struggle with reading are not as likely to participate in unstructured reading activities during the summer (Menard & Wilson, 2014). Therefore, explicit instruction provides vulnerable readers with useful strategies to interact with and decode print. Following this, Justice and Kaderavek (2004) propose an embedded-explicit model of literacy

intervention for young, at-risk readers. In this approach, both explicit and embedded intervention are integrated, with embedded intervention focusing on interaction with literacy that is self-initiated, naturalistic, and contextualized by children (i.e. adult-mediated play and interactions with environmental print). Through this integrated approach, both evidence-based practices are combined to provide the most effective support for young readers. As such, effective summer programming should include an embedded-explicit approach to teaching and learning in order to best support vulnerable readers.

Small-group and one-on-one learning environments. The size of the instructional group is another important consideration in effective intervention. Research shows that small-group instruction is more effective than individual or whole-class approaches to teaching (Ehri, Nunes, Willows, Schuster, Yaghoub-Zadeh, & Shanahan, 2001). Research by Vaughn, Hughes, Moody, and Elbaum, (2001) focuses directly on reading-based instructional groups for students with LD, with a resulting discussion on the implications of various grouping strategies – whole class, small groups, pairs, and one-on-one – for children with disabilities. Small-group instruction is most favourable because it allows for the flow of communication and feedback between student-student interactions and student-teacher interactions (Vaughn et al., 2001). Specifically, small groups yield more learning for both disabled and non-disabled students, with the ideal grouping size suggested to be between three and six children. In fact, previous research indicates that the benefits of small group instruction include efficient use of teacher and student time, low cost, increased instructional time, increased peer

interaction, and opportunities for student skill improvement (Polloway, Cronin, & Patton, 1986). Studies involving at-risk reading populations support the use of small-group instruction, while also encouraging one-on-one instruction (Elbaum, Vaughn, Hughes, & Moody, 2000). A meta-analysis of intervention research was conducted, exploring the effectiveness of one-on-one tutoring programs for students at-risk for reading failure (Elbaum et al., 2000). Results indicated that one-on-one support was effective in improving reading; however, small-group instruction was also able to provide the same effects. As such, both small-group and one-on-one learning environments should be recognized when considering effective summer intervention for vulnerable readers.

Component literacy skills. The National Reading Panel (2000) suggests that effective literacy instruction should include explicit instruction aimed at targeting areas of phonemic awareness, systematic phonics instruction, sight-word vocabulary, fluency and comprehension. Each of these component literacy skills is fundamental when considering effective intervention for vulnerable readers.

According to the National Reading Panel (2000), phonemes are small units that can be combined to form syllables and words in spoken language. As such, phonemic awareness is the ability to identify and manipulate sounds. Furthermore, phonics is the relationship between each letter and its sound, relating to the written word. Effective phonological support and instruction is highly relative in early literacy development for children (Philips, Clancy-Menchetti, & Lonigan, 2008). In fact, research indicates that phonemic awareness is predictive

of children's long term reading success, highlighting a need for vigorous, systematic phonics and phonemic awareness instruction for vulnerable readers.

Sight words are best described as a category of frequent words that can be read automatically by proficient readers, and are not easy to decode phonetically (Fleming, 2006). Therefore, these words require memorization for successful reading. Approximately 60-70% of reading tasks consist of sight words, so by improving sight-word vocabulary, success in the overall reading process is promoted.

The National Reading Panel (2000) describes fluent readers as those who can read with speed, accuracy, and appropriate expression. Fluency and comprehension are tightly linked literacy skills, as the ability to read fluently enables comprehension. Research suggests that readers who are poor in the area of fluency struggle to extract meaning from text. Therefore, fluent, comprehensive reading is reliant on fundamental literacy skills such as phonemic awareness and sight-word vocabulary, as well as the ability to eloquently string words together. By encouraging intervention which targets these fundamental literacy skills, reading fluency and comprehension are also easily addressed. In addition, the National Reading Panel (2000) outlines repeated reading that involves children receiving guidance and feedback as they engage in oral reading of a passage multiple times, as an effective method for reading instruction and fluency.

The National Reading Panel (2000) describes comprehension as a combination of complex cognitive thought to decode vocabulary, and active intentional interactions between a reader and a text. Furthermore, it is described as critical in the development of reading and general academic study. Comprehension should be a consistent focus of literacy instruction, as it is the primary goal of reading and is an essential tool for children to produce meaning from text.

Print exposure. As suggested by Stanovich, West, and Harrison (1995), print exposure is a significant predictor of vocabulary and declarative knowledge. According to a report by the National Reading Panel (2000), both guided oral reading and independent silent reading are elements of print exposure. McBride-Chang, Manis, Seidenberg, Custodio, and Doi (1993) outline several benefits of print exposure that emerged from their study in disabled and non-disabled readers, suggesting that increased print exposure benefits reading by increasing practice with orthographic processing. Moreover, McBride-Chang et al. indicate that print exposure can support interest in reading, enhance general knowledge, increase vocabulary knowledge, and improve familiarity with text structures.

Research on scaffolding voluntary summer reading for children in Grades 3 to 5 elucidates the importance of print exposure (Kim & White, 2008). A study was conducted that included 24 teachers and 400 children, with each child randomly assigned to a specific condition. The conditions included: control, books only, books with oral reading scaffolding, and books with oral reading and comprehension scaffolding. Both parents and teachers were involved in

scaffolding students' reading. Pre- and post-tests of the children's achievement were completed to measure the effects of each condition. The study demonstrated that children in the scaffold conditions achieved higher scores on the post-test than those without scaffolding, pointing to the importance of access and exposure to print, as well as scaffolding in order to support reading gains.

Grant, Wilson, and Gottardo (2007) conducted a study which explored the relations between print exposure, vocabulary, and reading comprehension of post-secondary students with and without reading disabilities (RD) and concluded that print exposure and practice of reading skills is more likely to occur in good readers. This implies that with less exposure and practice, individuals with reading disabilities will incur a greater loss of their decoding skills over the summer months, resulting in further setbacks in reading skill development (Menard & Wilson, 2014). Similarly, when students with RD are unable to fluently read, it is unlikely that they will do so for pleasure and therefore do not progress their reading skills outside of school.

Motivational tactics. The Matthew Effect is a phrase that has been used to illustrate the path that many vulnerable readers take. It was first introduced by Stanovich (1986) and is based on a Biblical referencing of 'the rich get richer and the poor get poorer.' In regard to reading, the Matthew Effect is a trajectory that displays vulnerable readers falling behind their grade-level peers in reading achievement, with the 'rich' being grade-level readers and the 'poor' being students with reading difficulties. Children who struggle with reading tend to read less than their non-RD peers, and therefore do not engage in reading practice

as often (McBride-Chang et al., 1993). As such, there is a resulting gap between the reading achievement of grade-level students and students who experience reading difficulty (Holtzheuser & McNamara, 2014). In fact, this comparative gap widens as children age and can be attributed partly because of the lack of motivation that children with reading difficulties have to engage in the reading process.

Aside from traditional literacy instruction, this gap can be lessened by addressing the motivational issues tied to reading engagement through self-regulation. Self-regulation can be described as self-created thoughts, behaviours and feelings contingent upon self-beliefs and affective feedback, that are created and modified to achieve personal goals (Zimmerman & Schunk, 2012). The prefrontal cortex (PFC) supports self-regulation through various cognitive functions, such as working memory, response inhibition, attention filtering, decision making, and planning (Kelley, Wagner, & Heatherton, 2015). Most importantly, self-regulation is a triadic, cyclical process between the person, the environment, and the behaviour (Zimmerman, 1989). The significance of self-regulation lies in its association with improved performance, enhanced learning, and increased well-being (Zimmerman, 2000; Schutz & Davis, 2000; Newburg, Kimiecik, Durand-Bush, & Doell, 2002; Simon & Durand-Bush, 2009).

Butler (1998) observes self-regulated learning (SRL) and introduces the intrinsic connection between student learning and engagement. SRL can be defined as the active participation in one's learning – metacognitively, motivationally, and behaviourally (Zimmerman, 1986). Research on the

development of self-regulation in children demonstrates that it does not replace the need for academic skills and knowledge, but rather lays the foundation for the development of these abilities (Blair & Raver, 2015). In a learning setting, effective self-regulation requires focusing and maintaining attention, controlling emotion, managing stress, reflecting on information and experiences, and engaging in positive peer and teacher interactions (Blair & Raver, 2015).

Products of cognitive engagement have a direct effect on students' self-efficacy, playing a major role in future motivation with learning tasks (Holtzheuser & McNamara, 2014). As such, recognizing the importance of successful self-regulation is fundamental in supporting student achievement. Holtzheuser and McNamara propose using a self-regulated learning framework, based on research by Winne and Hadwin (1998), to support struggling readers by targeting the motivational component of effective literacy programming. Winne and Hadwin (1998) describe a self-regulated learning model that attempts to engage learners' task understanding, perceived self-efficacy, goal setting, and monitoring and feedback. Through this model, children are prepared with the tools to employ self-regulated learning skills effectively and independently. By considering the reading acquisition process through these four SRL constructs proposed by Winne and Hadwin, long-term reading success is supported while both academic reading skills and student motivation are addressed.

Social skills. Research has linked children's social behaviour to their academic achievement, with approximately 75% of students with learning disabilities also demonstrating a deficit in social skills (Kavale & Forness, 1996).

In particular, general social competence, which includes peer relations and appropriate classroom behaviour, has been linked to children's achievement and adjustment in school (Wentzel, 1991, 1993).

In order to promote competence in social and emotional functioning, children must find harmony among their emotion, cognition, and behaviour (Zins, et al., 1998). Zins et al. (1998) define self-awareness, self-regulation of emotion, self-monitoring, empathy and perspective-taking, and social skills in relationships as key social and emotional learning skills. They also identify these skills as fundamental in the development of thinking and learning, explaining that it is not possible to attain academic success without addressing social and emotional learning skills (1998). As such, the presence of social skills instruction in literacy intervention programs can help promote the effective engagement of students in learning processes, particularly when the learning is cooperative (Bremer & Smith, 2004).

In addition, creating a positive classroom climate where children feel valued and respected is fundamental for children to develop and practice social skills, and can be executed through the implementation of daily class meetings, unstructured time with peers, noncompetitive extracurricular activities, and opportunities to express feedback (Bremer & Smith, 2004). Following this, social skills instruction and the development of a positive classroom environment should be considered in the development of a literacy intervention program for children with learning disabilities.

The Present Study

The current thesis study examined the efficacy of a summer literacy program designed to address the summer learning loss phenomenon for vulnerable readers. This thesis poses the following three related research questions:

1. Will children demonstrate clinically significant achievement gains as a result of participating in the summer literacy program?
2. Will achievement gains be sustained as children enter their fall school year as a result of participating in the literacy program throughout the summer months?
3. How will the perceived experience of children participating in the summer literacy program be reflected in their success?

It was hypothesized that providing a summer literacy intervention program would prevent declines in achievement and would support achievement gains from pre- to post-tests for children participating in the S.L.A.M. program. Overall, research demonstrates that the summer learning gap created by the 8-9 week summer vacation from school can result in children losing academic knowledge and skills that they gained in their previous school year (Cooper et al., 1996). This learning loss phenomenon that occurs over the summer vacation period has shown to be particularly problematic for children with LD (Menard & Wilson, 2014). In fact, research has found that children with LD demonstrate significant regression in reading scores over the summer months due to the summer learning gap. The summer literacy program adopted in this study was

aimed at addressing the summer learning gap for children with LD. It was hypothesized that by continuing literacy instruction over the course of the summer, achievement gains would be seen in the post-test results. As such, it was perceived that providing a summer intervention program for vulnerable readers would decrease the summer learning loss effect in children with reading difficulties. It was also hypothesized that by providing such a program, children would maintain or increase the achievement scores that they first entered the program with, by the fall assessment, supporting the positive impact that a summer literacy intervention program has on negating the summer learning loss. It was also suggested that children's overall program success would reflect their motivation and program engagement.

CHAPTER THREE: METHODS

This research study adopted a mixed-methodological approach that focused on examining the effectiveness of the Learning Disabilities Association of the Niagara Region's summer literacy program called S.L.A.M. To achieve the research objectives described in the conclusion of Chapter Two, the research protocol included four broad components. The first step was to describe the S.L.A.M. program in detail, as a thorough program understanding provides a strong foundation to appreciate the current study.

The second component included a pre-test/post-test research protocol used to measure whether children made clinically significant gains in their literacy skills over the summer months. Specifically, all participating children were assessed on the first and last day of the program, per week. That is, children were assessed on each Monday and Friday that they were enrolled in the program. For children enrolled in consecutive weeks, a Friday post-test was not administered until the final consecutive week of enrollment. A series of standardized literacy assessments were used for the pre- and post- tests, and scores were then compared with those of typically achieving six to ten year old children.

The third component of the study included a daily field journal with notes from the Head Facilitator at the S.L.A.M. program in St. Catharines. As the acting researcher, I also took on the role of the Head Facilitator at the St. Catharines program location. Specifically, the field journal included daily

observations that helped in the discovery of the contextual factors contributing to the children's experience of the program and the program's success.

The fourth component included focus-group interviews with the facilitators involved in the S.L.A.M. program. Specifically, focus groups were conducted with the two One-on-One Facilitators and the Recreational Facilitator of the St. Catharines program location. These focus groups took place on a weekly basis, with the purpose being to uncover the contextual factors that contributed to the children's experience of the program and the program's success.

The multi-lens approach adopted to explore the summer intervention program allowed for a thorough understanding of both the program achievement data and the contextual factors associated with delivering a summer literacy program, such as the one offered by the LDANR.

Program Description

With this thesis rooted in the Learning Disabilities Association of the Niagara Region's S.L.A.M. program, a description of the program was necessary to provide a comprehensive view of the program design and implementation. This view is fundamental in understanding how such a program can promote summer literacy success for children with reading difficulties. As such, the sole focus of Chapter Four is the description of the S.L.A.M. program.

Empirical Measures

The second component included a quantitative analysis of the pre-test/post-test data used to measure children's achievement gains in their literacy skills. The 15 participating children were administered assessments on the first and last day of the S.L.A.M. program, per week that they were enrolled, to determine achievement gains (Appendix E). Children enrolled in consecutive weeks did not receive a post-test until the final week of consecutive program enrollment. With the varied ages and reading levels of the participants, administering literacy pre-tests helped to increase the data reliability. The assessments were administered by the One-on-One Facilitators and were composed of four key components. First, *The LDANR Phonics Assessment*, a standardized assessment of phonics principles, was used to measure the children's understanding of phonemes (Appendix F). This assessment consisted of two pages, including 16 concepts that ranged in a hierarchical structure from letters to more advanced phonics principles, and held a total raw score of 255. The second component of the assessment was *The Dolch Sight Word Assessment*, a standard measure used for assessing the various levels of sight words, categorized by grade (Appendix G). Each grade category on the *Dolch Sight Word Assessment* contained between 40-50 sight words, with a total raw score of 300 words. The third assessment component included a *Phonemic Decoding Efficiency Assessment (TOWRE-2)* that was used to measure an individual's ability to pronounce phonemically regular non-words accurately and fluently (Appendix H). This assessment component had a total raw score of 66. The final component of the assessment was *The Fluency Assessment in WCPM*, a standardized measure of

reading fluency that involved timing an individual while reading, and then using a formula to calculate the words read correct per minute (WCPM) achieved (Appendix I). The WCPM formula uses the words read correctly and the time spent reading to calculate a fluency rate. Fluency passages used at the S.L.A.M. program were from Lakeshore Learning. Each passage was leveled by the Lakeshore Learning Company and contained a letter that corresponded to a grade and DRA score (Lakeshore Learning, 2017). Each of these tests comprising the assessment was selected for their capacity to review the skill-sets that are critical in the development of overall reading ability. The results informed the one-on-one and large group reading sessions that were designed by the facilitators, as well as used to assess the efficacy of the S.L.A.M. program in creating achievement gains during the summer months for vulnerable readers.

Participants. A total of 15 children, age six to ten, participated in the current study, of which five were female and ten male. In particular, four of the children were entering Grade 2 in the September, four children were entering Grade 3, one child was entering Grade 4, five children were entering Grade 5, and one child was entering Grade 6. The sample included children with a diverse range of reading abilities, which were assessed on the children's first day in the program. Study eligibility was determined based on school literacy achievement, the number of weeks that children were enrolled in the summer program, the program site, and behavioural concerns. The S.L.A.M. program was offered at a low-cost to the program participants, at only $100 per week. Families who did not already hold a LDANR annual family membership were also required to

purchase one during program sign-up ($50 per year). The staff at the Learning Disabilities Association of the Niagara Region screened all program application forms for child eligibility, and then notified those who were accepted to the program. Children with reading disabilities and at-risk for reading disabilities were enrolled in the program. A formal reading disability diagnosis was not required for program admittance. Caregivers could enroll children in the program for any amount of time, ranging from one to seven weeks. Caregivers were also able to request to sign their child up at the most convenient program location (St. Catharines, Welland, or Niagara Falls).

Research protocol. S.L.A.M. was offered at the St. Catharines location for seven weeks between July and August 2016, and was offered for three weeks at the Niagara Falls location and three weeks at the Welland location. The St. Catharines program location that was investigated for this study was implemented in an elementary school classroom, in a school under the Niagara Catholic District School Board.

The research protocol involved a pre- and post-test design where participating children were administered the four-components of the assessment on the first and last day of each week that they were enrolled in the program, with the aforementioned exception of children enrolled in consecutive weeks. Trained One-on-One Facilitators were responsible for administering the series of assessments. The assessments took place during the one-on-one literacy sessions.

Focus Groups

The third component of the study involved a series of focus groups with the trained facilitators at the St. Catharines program location. Focus groups can be described as a form of data collection that explore a specific area of interest through group discussions and interactions, and are recognized as being able to provide rich and interactive data in research (Kitzinger, 1994; Raby, 2010). The focus groups were beneficial in eliciting the views of the facilitators surrounding the program's design, implementation, and effectiveness. In particular, the use of focus groups was beneficial in clarifying and extending the data collected through the standardized reading assessments and field journal (Gill, Stewart, Treasure, & Chadwick, 2008). In addition, the focus groups offered insight into the perceived experiences of the children, and the impact of these experiences on their subsequent program success. For the purpose of this study, success was broadly defined in order to consider the many contextual factors that may influence children's success in the program. As such, success not only includes the children's concrete achievement gains, but also their motivation, self-efficacy, and overall enjoyment of the program. The main objective of the focus groups was to examine the effectiveness of the summer literacy program, as well as any contextual factors that may influence its success.

Focus groups were selected as a method of data collection to encourage new ideas, challenge others' comments, and share excitement and collaborative thinking. Research shows that using pre-existing groups in focus-groups can help in the elicitation of information because the individuals' shared experiences and familiarity with one another promotes a healthy discussion and an existing level

of comfort with challenging one another (Gill et al., 2008). As such, by conducting focus groups with the facilitators that interacted daily at the S.L.A.M. program, ideal and rich interaction for the purpose of the research was supported.

The focus groups took the form of semi-structured, open-ended group discussions. The discussion structure focused on the program design and implementation, the children's perceived experience of the program, as well as the contextual factors that may have affected the experience of children participating in the program; however, focus groups were conducted with enough flexibility for the facilitators to discuss any other areas of interest (Gill et al., 2008). There were five prepared questions and further questions emerged as the discussion evolved (Appendix C). These five key questions helped to define the content that would be explored in the interviews while allowing the participants and researcher to discover and elaborate on information. The data collection took place diachronically, allowing for observation over time. Specifically, focus groups took place at the end of each week of the program (Friday) and lasted approximately 30 minutes. The focus groups took place in a classroom at the school where the program ran, after 4pm, to ensure privacy and reduce distraction (Gill et al., 2008). Each focus group session was audio recorded and transcribed for analysis.

As the Principal Investigator of this study, I conducted all of the focus group interviews and was the only third party present during the interview and transcription. Before beginning the focus groups, I acknowledged that the recordings of each session would be kept in a locked drawer and recordings would

be erased when the study was completed. I also acknowledged that participants could withdraw from the study at any point without penalty and that pseudonyms would be used to protect participant anonymity (Gill et al., 2008). As the Principal Investigator of this study, I moderated the focus groups and made a conscious effort to restrict my participation and refrain from providing my own views so that bias was not introduced (Gill et al., 2008). I also maintained the flow of the discussion and ensured that all participants had an opportunity to contribute.

The use of focus groups was beneficial as it allowed for the shift of power from researcher to participants (Kitzinger & Barbour, 1999; Wilkinson, 1998). With a greater number of participants, the control of the discussion was in the hands of the participants, allowing them to shape and shift the discussion as they wished, while providing support to one another (Warr, 2005). As such, I made a conscious effort to allow the discussion to flow naturally and in accordance with the participants.

Participants. Three facilitators participated in the focus groups for this study, all of which were female. They included the two One-on-One Facilitators (Amanda and Sara) and the Recreational Facilitator (Rebecca) from the S.L.A.M. program at the St. Catharines program location. Each of the facilitators had an educational background related to either child and youth or disabilities, and was between the age of 22 and 25. Recruitment for the focus groups adhered to a standard process involving all potential participants receiving study information,

followed by a letter of invitation and a consent form for participation in the study (Appendix B).

The facilitators participated in the focus groups at the end of each week, for approximately 30 minutes following the program. The questions used to guide the discussion were designed to promote conversation surrounding the program's effectiveness and the children's perceived experiences. Specific questions included: Did you notice any changes in the children's motivation or engagement this week? How do the children perceive the S.L.A.M. program? How do you know? These questions were asked to determine the contextual factors that make S.L.A.M. successful, reflected in the program design and the children's experiences.

The focus groups adhered to Brock University's Research Ethics Board standard protocol (Appendix A). Ethical clearance is attached in Appendix A.

Daily Field Journal

The fourth component of the study involved the maintenance of a daily field journal (Appendix D). As the Principal Investigator of the study, I described and interpreted my research experience through a field journal as a method of enhancing credibility (Koch, 2006). It is suggested that keeping a field journal that includes the content and process of various interactions and events relative to the research can improve self-awareness in the research process and ultimately enhance credibility (Koch, 2006). The main objective of the field journal was to record material for future reflection on the S.L.A.M. program's effectiveness and

the children's perceived experiences at the program. This includes the behaviours, activities, events, and any other observations relative to the research. In particular, the field journal was beneficial in supporting, extending and clarifying the data collected in the standardized reading assessments and focus groups.

The field journal was maintained daily for the seven week duration of the S.L.A.M. program. Each journal entry was dated and included a subject heading indicating the category of information being recorded. Field notes consisted of two parts: (1) Descriptive Information and (2) Reflective information. Beyond this, the journal was divided into five key components: (1) Before and After Programming, (2) Morning, (3) Afternoon, (4) Meals and Breaks, and (5) Other. Furthermore, these five components were sub-divided into: (1) Academic and (2) Non-Academic. A sample field note page with each of the above categories can be found in Appendix D. These broad categories helped in the organization of my ideas and interpretations, but were also broad enough to allow themes to emerge. Pseudonyms were used when recording information to ensure the privacy of the participants (Koch, 2006).

The field journal adhered to Brock University's Research Ethics Board standard protocol (Appendix A). Ethical clearance is attached in Appendix A.

CHAPTER FOUR: S.L.A.M. PROGRAM DESCRIPTION

S.L.A.M. is a summer literacy program offered by the Learning Disabilities Association of the Niagara Region (LDANR). The program was designed by the LDANR in an attempt to lessen the effects of the summer learning gap for children with reading disabilities. The design and offering of S.L.A.M. was supported by a grant from the Branscombe Family Foundation – a charitable organization which aims to help assure the future health, education, and social well-being of those living in the Niagara region. Following this, between July and August (2012-2016), S.L.A.M. was offered in three high-needs locations, within neighbourhood schools and community centers, to children ranging from six to ten years of age and demonstrating difficulties in their literacy skills. Each program location was initially staffed with three program facilitators, which has since grown in the last two years to four program facilitators, responsible for running the program site. Each site also included between two and six program volunteers, depending on volunteer availability, who assisted with the program's implementation. All program facilitators attended two training sessions, while volunteers also underwent a training session to prepare them for the program's execution.

Each of the seven weeks of the program was designed by the program coordinator of the LDANR. As such, each program location received consistent training, curriculum, and a delivery plan, with room for flexibility and individualization informed by the children's assessment results and individual needs. Each site offered the program on Monday-Friday from 9am-4pm. The St.

Catharines program was offered for seven weeks. Extended child care was also offered from 8-9am and 4-5pm. On each Monday and Friday of the program, standardized literacy assessments were incorporated into the daily program routine to determine the efficacy of the program and the individual learning needs of each child. Fourteen children were admitted to each program site per week, providing low child-adult ratios. Each site staffed a Program Head Facilitator, who oversaw the daily execution of the program, and was responsible for literacy and social skills instruction – including literacy stations and small-large group literacy activities. Two facilitators per location were trained to work one-on-one with each of the participating children, while a Recreational Program Facilitator at each site was responsible for recreational activities and cooperative games aimed at promoting positive social skills and further developing literacy skills.

Effective Pedagogical Approaches

S.L.A.M. was designed based on three key learning strategies found to be effective in supporting vulnerable readers. These strategies include explicit and embedded instructional approaches, small group and one-on-one learning contexts, and motivational tactics (Justice & Kaderavek, 2004; Elbaum et al., 2000; Holtzheuser & McNamara, 2014).

Embedded-explicit instruction. Justice and Kaderavek (2004) promote an embedded-explicit instructional method, combining social opportunities to engage in literacy practice and the direct teaching of literacy skills. S.L.A.M. integrated this combination approach into three key parts of the program –during small group literacy, large group literacy, and the one-on-one instructional time.

During these program components, the framework for program delivery typically includes a drill-and-practice approach for the target skill, followed by an engaging literacy game.

Foorman and Torgeson (2001) promote the effectiveness of direct, explicit instruction when working with vulnerable readers. Unlike their peers, children with reading disabilities experience greater difficulty generating conclusions about literary relationships and acquiring new word-specific knowledge while reading. As such, a more explicit approach to reading provides the intensity and comprehensiveness required to meet the specific needs of vulnerable readers. This type of instruction can be characterized by guiding children through their learning with supports and scaffolding until mastery has been achieved (Archer & Hughes, 2011). Furthermore, it includes adult modeling, demonstration, targeted elicitation, and repeated guided practice (Justice & Kaderavek, 2004). The S.L.A.M. program employs an explicit approach to each of the component literacy areas – sight word vocabulary, phonics, phonemic awareness, fluency, and comprehension. Ultimately, children in the S.L.A.M. program respond to this technique when it is offered alongside embedded literacy instruction, such as consolidation activities and interactive games.

Embedded literacy instruction supports children as they engage in social and purposeful literacy practice (Justice & Kaderavek, 2004). This type of instruction involves adults mediating play as children interact with literacy-related artifacts, contextualized environmental print, and storybooks. The S.L.A.M. program incorporated this technique through a literacy-rich environment

involving signs, labels, schedules, and storybooks, as well as literacy games and activities that allowed children to engage with component literacy skills in a social setting.

Small group and one-on-one learning contexts. Learning contexts are another factor to consider in the development of an effective summer literacy program. For children with reading difficulties in particular, the learning environment is critical in literacy success. As such, small-group instruction has proven to be among the most effective approaches to teaching (Ehri et al., 2001). When considering children with learning disabilities, small-group instruction is most favourable as it encourages the flow of communication among all members of the classroom, while promoting meaningful interactions (Vaughn et al., 2001). At S.L.A.M., the benefits of small-group learning contexts are recognized and evident in the program design, with literacy instruction at small-group learning centers interwoven throughout the day. Learning centers at S.L.A.M. are shaped with groups of 3-6 students, as suggested by research, and children are encouraged to engage in meaningful conversation about the topics at hand. Children rotate through various learning centers in their small groups, providing opportunity to engage in various literacy activities with their peers.

Research also supports the use of one-on-one instruction for vulnerable readers (Elbaum et al., 2000). As such, S.L.A.M. has incorporated a one-on-one component to the program design. The two One-on-One Facilitators organize their day to ensure that they can offer a block of time dedicated to one-on-one instructional support for each child in the program. Throughout each day, the

facilitators take students aside to work on their specific literacy needs in a one-on-one learning environment. It is also the duty of the One-on-One Facilitators to conduct the standardized reading assessments on the Monday and Friday of each week, to dictate the type of literacy support and programming that each child will receive. As such, the assessments target fundamental literacy skills including sight word vocabulary, phonics, fluency, and comprehension. The facilitators then make notes to indicate the child's literacy needs and share their findings with the other program facilitators. This allows for the child's areas of need to be explicitly targeted during both the one-on-one time and the child's time spent learning in a group setting.

Motivational tactics. Motivational tactics were another important consideration in the program design of S.L.A.M. The motivational tactics used at S.L.A.M. are based on Winne and Hadwin's (1998) self-regulated learning model, and are executed through the use of instructional folders. The instructional folder is a vehicle which allows the children to engage in each of the four motivational components of the self-regulated learning model: task understanding, perceived self-efficacy, goal setting, and monitoring and feedback. It is a manila folder used to organize the children's achievement.

Task understanding and perceived self-efficacy is made possible through the use of the instructional folder. By co-creating the folder to include literacy skill component areas – sight word vocabulary, phonics, and fluency – and discussing each of these areas while creating the folder, the child is able to gain a greater understanding of the tasks ahead, while developing autonomy over their

learning, and improving their self-efficacy (Scruton & McNamara, 2014). In addition, the child is encouraged to decorate the folder and design it to reflect their personal interests.

Scruton and McNamara (2014) describe goal setting as an unnatural process, therefore requiring instruction in order to do so. As such, S.L.A.M. is designed to include opportunities for children to understand how to set attainable goals during the one-on-one instructional blocks. Through goal-setting, the children are able to reach their literacy goals, as well as receive praise from the facilitators. In turn, the children's self-efficacy and self-esteem is improved, and the children's motivation to engage with reading increases (Scruton & McNamara, 2014).

Monitoring and feedback is the final motivational component of S.L.A.M. Research demonstrates that strong readers engage in monitoring by reflecting on reading tasks, whereas children with reading disabilities experience difficulty in monitoring and feedback during reading (Zimmerman, 2008). At S.L.A.M., the facilitators teach children how to engage in the monitoring and feedback process through scaffolding. The child is able to track his/her literacy skills in the instructional folders using graphs, so success is clearly displayed. Each facilitator-child pair engages in conversations about the child's achievement, and uses the graph in the folder to showcase this achievement.

An Overview of a Typical Day at S.L.A.M.

Note: Children are taken aside individually, at various points throughout the day, to work on their specific literacy needs in a one-on-one learning environment with a trained facilitator. The sample one-on-one literacy session is included after the overview of the day.

Morning routine.

8:00-8:50 Extended care. Children who sign up for extended care arrive between 8:00am and 8:45am where they engage in quiet free play from a pre-selected range of activities. As children enter, parents/guardians sign them in to the program using a sign in/out binder.

8:50-9:00 Program drop off. Children who are not signed up for extended care are dropped off between 8:50am and 9:00am. During this time, the Recreational Facilitator leads cooperative circle games for the whole group to participate in. At this time, program volunteers are either participating in the circle games with the children, or helping the Head Facilitator prepare for the day (i.e. preparing supplies, greeting parents at the door, helping children put their bags away and join the circle, setting up literacy stations, etc.).

9:00-9:30 Morning circle. The morning circle is jointly led by the Head Facilitator and the Recreational Facilitator. These 30 minutes are intended for the children to get to know one another and the facilitators, become familiar with the classroom rules and routines, and to review the daily schedule and prepared activities for the day.

9:30-10:30 Literacy stations. Each day, this hour is dedicated to literacy stations. There are a total of four stations, with three stations focusing on component literacy areas – (1) sight word vocabulary, (2) phonics and phonemic awareness, and (3) fluency and comprehension, and an additional station focused on writing. The children rotate from station to station in 15-minute intervals. The fourteen participating children are divided into four small groups to rotate through the stations, based on their literacy strengths and needs. The Head Facilitator, Recreational Facilitator, and program volunteers are situated at the various stations to support the children. Learning at the literacy stations reflect the explicit and embedded instruction that the children received during their one-on-one literacy block. As children engage in reading at each station, guidance and feedback is provided by a staff member or volunteer. Each station is designed to meet the literacy needs of the small group, as learning is consolidated through interactive games and activities.

10:30-11:00 First break. Before beginning the break, children partake in the completion of a Success Chart as a whole group. At this time, each child is recognized by his/her peers for their literacy and social skill gains in the previous block through positive dialogue, and receive a stamp on the chart. The break is then divided into two components. First, children eat a snack for 10-15 minutes, followed by silent or partner reading for 10-15 minutes. Facilitators and volunteers aim to sit with children to scaffold reading at this time.

11:00-11:45 Group Literacy. This 45 minute block is dedicated to whole-group and small-group literacy activities. During this time, the children

participate in whole-group activities designed to strengthen their literacy skills. First, the children are taught a skill in a direct and explicit manner, and then learning is consolidated through an interactive game or activity. Children then continue the activity in small-groups. During this time, volunteers and facilitators scaffold student learning and provide the necessary supports to help each child master their new literacy skill.

Afternoon routine.

11:45-12:30 Lunch. The break is divided into two components. First, children eat a snack for 25 minutes, followed by free play from a pre-selected range of activities for 20 minutes. Some of these activities include modeling clay, puzzles, blocks, playing cards, and colouring.

12:30-1:15 Social skills. This part of the day supports the development of positive social skills through whole-group and small-group activities. The lesson typically begins with a storybook on a fundamental social skill topic (i.e. sharing, cooperation, respect, etc.). Then, the Head Facilitator engages the children in a discussion about the topic at hand. Children then proceed to consolidate their learning with a game or activity in small-groups, with the support of facilitators and volunteers.

1:15-2:45 Recreation activities. The recreational component is led by the Recreational Facilitator and can be divided into two blocks (1:15-2:00 and 2:00-2:45), with one block dedicated to a craft and the other dedicated to cooperative

indoor/outdoor games. All of the activities that take place in these blocks are aimed at further supporting the development of positive social skills and literacy.

2:45-3:15 Second break. The break is divided into two components. First, children eat a snack for 15 minutes, followed by free play outdoors (if the weather permits) for 15 minutes.

3:15-3:45 Recreation activities. This block is also dedicated to cooperative games that support the children's development of strong social skills and literacy.

3:45-4:00 Closing circle. The closing circle is jointly led by the Head Facilitator and the Recreational Facilitator. These 15 minutes are spent consolidating the day and praising the children's hard work and dedication with a 'bead' reward system.

4:00-4:10 Pick-up. Children who are not signed up for extended care are picked up. Parents/guardians use the sign-in/out binder to record their names before picking up their child. Parents are encouraged to engage in a conversation with their child and a facilitator about the child's goals and achievements at the program.

4:10-5:00 Extended care. Children who sign up for extended care leave between 4:10pm and 5:00pm. As they wait the children engage in quiet free play from a pre-selected range of activities.

An Overview of a Sample One-on-One Instructional Session at S.L.A.M.

Note: Each one-on-one session is strategically structured and tailored to meet the individual literacy needs of each child. Therefore, the description below is simply a sample based on one child's needs. In addition, the facilitator completes pre- and post-assessments with each child to help direct the instructional design.

The instructional folder. Ongoing: Each child has their own folder which acts as a graphic organizer, displaying the child's progress and achievements. During the first session following the assessment, the child and facilitator begin co-creating the folder to reflect the three skill component areas (sight word vocabulary, phonics, and reading fluency) that will be the focus of their sessions together. This joint effort between the facilitator and child to create the instructional folder provides the child with foundational ownership over their learning. As time progresses, the folder evolves and becomes more personalized, resulting in deeper ownership over learning.

Goal setting and graphing. One to two minutes at the beginning and end of each session: Within the instructional folder, each child will have a personalized fluency graph. Together, the facilitator and child graph the child's progress and success. Specific formulas are used to calculate the number of words read correctly per minute (WCPM), producing scores that allow the facilitator and the child to track progress throughout the program. The facilitator and child use the graphs to set and track literacy goals, aimed to increase the child's confidence, self-efficacy, and self-esteem in relation to the reading

process. Challenging yet attainable goals are negotiated between the facilitator and child during each session, and are set for the following session. For example, on Tuesday the child will set a literacy goal for Wednesday. Fluency goals are set together, and goals are then recorded on the graph and tracked as the child reaches them. This collaborative process to create a visual display of success further motivates the child and encourages ongoing goal setting and tracking. Graphing and goal setting take place during each one-on-one session. The child also records each new sight word and phonics principle achieved on the inner or outer cover of their personalized instructional folder.

Sample literacy component instruction (sight words). Seven to eight minutes following goal setting: This portion of the session is dedicated to direct instruction of the sight words. The facilitator supports and scaffolds the child's learning, providing feedback and guidance as they aim for mastery of the literacy skill. For example, the facilitator might introduce new sight words on flash cards. The facilitator will demonstrate the correct pronunciation of the sight word and ask the child to repeat it. They will continue this repetitive process until the child is able to read the word without hesitation, and then will proceed to introduce the next word.

Five minutes following direct instruction: A literacy game is used to consolidate the target skill. This offers continued exposure, as well as a motivating and engaging approach to interact with the literacy skill. For example, the facilitator might introduce Sight Word Go Fish. Each card in the Go Fish deck would include a sight word that the child must read. The game is

specifically tailored to fit the interest of the child and further motivate them to engage with the new literacy skill.

Shared success. Ongoing: As mentioned, at the end of the session the child records and graphs their progress and success. The child is encouraged to share their success with other facilitators, volunteers, and family. At the end of each day, the child is invited to engage in a conversation with their parent/guardian and One-on-One Facilitator about their progress, demonstrating their success using the instructional folder. The One-on-One Facilitator records the child's achievement and progress to share with the other facilitators, specifically so that classroom literacy instruction can be tailored to the child's literacy needs.

CHAPTER FIVE: RESULTS

This study was intended to provide a comprehensive overview of the S.L.A.M. program through multiple lenses and analytical approaches. To understand the nature of the S.L.A.M. program and its elements, the program is described in detail in Chapter Four. The following chapter is sectioned into quantitative and qualitative results.

Quantitative Analysis

The quantitative data collected in this study were obtained by assessing each individual child at various points throughout the program. Children participating in the S.L.A.M. program varied in age, grade, diagnostic categorization, and base-line reading level. Considering the complexity of these variables it was decided to explore their reading achievement gains individually and clinically rather than within a statistical group-mean based model. Attempting to analyze group-mean reading scores would result in non-representative results that could not be generalized to any similar population. For example, averaging fluency scores of Participant A (80 WCPM) and Participant B (30 WCPM) equates to an average of 50 WCPM; a score that does not accurately represent either Participant A or B as a reader. In addition to this complexity, once participating children were categorized into grade, the small sample sizes reduced the power of any statistical analysis, compromising reliability and generalization of results. As such, it was decided to explore the quantitative data through an individual and clinical lens.

The protocol for reading assessment followed a pattern whereby pre-test data were collected every Monday that the program ran during the summer of 2016 (July 4, 11, 18, 25 and August 8, 15, 22). Post-test data were collected every Friday of the program, for children who were not enrolled for the immediate consecutive week (July 8, 15, 22, 29 and August 12, 19, 26). Children who were enrolled for consecutive weeks were not assessed with a post-test until their final week of enrollment, unless there was a break between weeks enrolled. The purpose of this assessment schedule was to maximize instructional time. For children returning the following week, a Monday pre-test would still be administered, and therefore it was more beneficial for children to receive one-on-one instructional time on Friday. A 1-week break from all programming took place from August 1-5, due to the Civic Holiday. As such, all children enrolled in week 4 received a post-test on the Friday before the break.

Data were collected for each participant in four reading-based areas; phonics, sight words, phonemic decoding, and reading fluency. Reading achievement data for each participating child is illustrated in Tables 2 through 5. Each table is sub-categorized by grade, representing the grade that the child entered in September 2016. Tables 2 through 5 include every assessment point that each participating child was assessed, including the fall assessment where each child was administered a follow-up assessment.

Table 1. Legend for irregular recordings in Tables 2-5

Legend

A	Child absent
NR	Assessment not recorded
	Assessment not administered

Table 1 represents a legend that is used to decipher some recordings used in Tables 2-5. As with any program, absence due to illness, vacation, etc. occurred. For absences that occurred on assessment day, an 'A' was recorded in the table. In September, although multiple attempts were made, two children were not assessed due to a lack of response from guardians. Additionally, an 'NR' was used to represent an unrecorded assessment. Usually, only a portion of the assessment was not recorded, at the discretion of the One-on-One Facilitator. This occurred for several possible reasons, including signs of stress and anxiety about the assessment, lack of cooperation, or unforeseen disruption to the one-on-one instructional block. Finally, a gray box indicates no assessment because either the child was not enrolled for the week, or the child was not scheduled to receive a Friday post-test and they were scheduled to return the following week.

Phonics. Phonics achievement data for children participating in the program is illustrated in Table 2. Phonics achievement scores across the 7 weeks of the program and the final fall assessment are indicated. Visual inspection of the scores illustrated that all participants showed a noticeable increase in their phonics scores from their first summer pre-test to their last summer post-test. All

participants also demonstrated an increase comparing their first summer pre-test to their September assessment. Grade-based analyses are discussed below.

Table 2. Pre-test and post-test scores of LDANR phonics assessment

Grade	Participant	Week														
		1_1	1_2	2_1	2_2	3_1	3_2	4_1	4_2	5_1	5_2	6_1	6_2	7_1	7_2	Fall
2	1 Joshua							110	131			141	155			154
	2 Sophia	153		150	160			167	175	167	177			178	187	A
	3 Mason	172		205		209		210	223	225		222		236	244	236
	4 Emily	172		202		193		203	211	209		210		225	243	239
3	5 Caleb	172		183		196		191	A	208		209		208	225	231
	6 Ryan	160	174													A
	7 Dylan			164		166		172	172	169		169		175	188	192
	8 Lucas	201	214									235	244			231
4	9 Nathan			184	190			232	249			227	232			251
5	10 Mia	182		185		177	191			229		236	249			244
	11 David	140		154	161			159	168	157	172			168	171	192
	12 Brooke			189		184	189									255
	13 Victoria			229	242											238
	14 Brayden	168	182													218
6	15 Justin	239		215	228			231	246	252		252	255			250

Grade 2. Joshua, Sophia, Mason, and Emily increased their summer program phonics scores from 110 to 155, 153 to 187, 172 to 244, and 172 to 243, respectively. Joshua attended the program on weeks 4 and 6, Sophia attended week 1, 2, 4, 5 and 7, and Mason and Emily attended weeks 1-7. From their first summer pre-test to their September assessment, Joshua, Mason, and Emily demonstrated increases of 44, 64, and 67 respectively. Sophia was absent for the September assessment.

Grade 3. Caleb, Ryan, Dylan, and Lucas increased their summer program phonics scores from 172 to 225, 160 to 174, 164 to 188, and 201 to 244,

respectively. Caleb attended the program on weeks 1-7, Ryan attended only week 1, Dylan attended weeks 2-7, and Lucas attended weeks 1 and 6. Caleb, Dylan, and Lucas demonstrated increases from their first summer pre-test to their September assessment of 59, 28, and 30 respectively. Ryan was absent for the September assessment.

Grade 4. Nathan increased his summer program phonics score from 184 to 232 and attended the program on weeks 2, 4, and 6. Nathan demonstrated an increase of 67 from his first pre-test score to his September assessment.

Grade 5. Mia, David, Brooke, Victoria and Brayden increased their summer program phonics scores from 182 to 249, 140 to 171, 189 to 189, 229 to 242, and 168 to 182, respectively. Mia attended the program on week 1, 2, 3, 5, and 6. David attended the program on week 1, 2, 4, 5, and 7. Brooke attended on weeks 2 and 3, Victoria attended week 2 only, and Brayden attended week 1 only. From their first pre-test to the September assessment, Mia, David, Brooke, Victoria, and Brayden demonstrated increased of 62, 52, 66, 9, and 50 respectively.

Grade 6. Justin increased his summer phonics score from 239 to 255 and attended the program on week 1, 2, 4, 5 and 6. Justin increased his score from his first pre-test to the September post-test by 11.

Sight words. Sight word achievement data for children participating in the program is illustrated in Table 3. Sight word achievement scores across the 7 weeks of the program and the final fall assessment are indicated in the table. The

highest possible score for this assessment is 300 words correct. All of the children demonstrated increases in their sight word scores from their first pre-test to their last summer post-test. Of the 13 children assessed in September, 10 of the children demonstrated increases in their sight word scores from their first pre-test to their fall assessment. Children that did not demonstrate these increases had achieved the highest possible score on their first summer pre-test. Grade-based analyses are discussed below.

Table 3. Pre-test and post-test scores of Dolch sight words assessment

Grade	Participant	Week														
		1_1	1_2	2_1	2_2	3_1	3_2	4_1	4_2	5_1	5_2	6_1	6_2	7_1	7_2	Fall
2	1 Joshua							10	15			15	25			36
	2 Sophia	139		149	164			162	176	201	213			170	178	A
	3 Mason	236		252		286		290	297	297		297		300	300	290
	4 Emily	154		166		205		232	250	282		287		296	300	288
3	5 Caleb	207		210		217		225	A	243		256		276	295	295
	6 Ryan	155	168													A
	7 Dylan			213		231		248	255	282		290		289	300	280
	8 Lucas	204	214									203	218			289
4	9 Nathan			300	300			300	300			300	300			297
5	10 Mia	247		291		294	300			298		294	300			297
	11 David	123		151	177			165	157	157	163	240	255			270
	12 Brooke			293		298	300									300
	13 Victoria			300	300											298
	14 Brayden	235	250													276
6	15 Justin	300		297	300			297	300	300		300	300			296

Grade 2. In the summer sight word assessments, Joshua, Sophia, Mason and Emily demonstrated increases of 10 to 25, 139 to 178, 236 to 300, and 154 to 300, respectively. Joshua, Mason, and Emily increased by 26, 54, and 134,

respectively, from their first pre-test to their September assessment. Sophia was absent for the September assessment.

Grade 3. Caleb, Ryan, Dylan and Lucas demonstrated sight word summer assessment increases of 207 to 295, 155 to 168, 213 to 300, and 204 to 218 respectively. Caleb, Dylan and Lucas increased their sight words by 88, 67, and 85, respectively, from their first pre-test to their September assessment. Ryan was absent for the September assessment.

Grade 4. Nathan maintained the highest possible score of 300 on the sight word assessment, on his first pre-test and final post-test during the summer. Nathan decreased by 3 words from his first pre-test to his final assessment in September.

Grade 5. Mia, David, Brooke, Victoria, and Brayden showed increases from their first pre-test to the final post-test in the summer of 247 to 300, 123 to 255, 293 to 300, 300 to 300, and 235 to 250, respectively. Mia, David, Brooke and Brayden increased from their first pre-test to the September assessment by 50, 147, 7, and 41 respectively. Victoria decreased by 2 words from her first pre-test to her final assessment in September.

Grade 6. Justin maintained the highest possible score of 300 on the sight word assessment, on his first pre-test and final post-test during the summer. Justin decreased by 4 words from his first pre-test to his final assessment in September.

Phonemic decoding. Phonemic decoding achievement data for children participating in the program is illustrated in Table 4. Achievement scores across the 7 weeks of the program indicated that 12 of the 15 children demonstrated increases in their phonemic decoding scores from their first pre-test to their final post-test in the summer, 1 child did not receive the assessment throughout the summer, 1 child demonstrated a decrease, and 1 child maintained the same score. Of the 12 children that received this September assessment, 11 demonstrated increases in their scores from their first summer pre-test. Grade-based analyses are discussed below.

Table 4. Pre-test and post-test scores of TOWRE phonemic decoding assessment

Grade	Participant	Week														
		1_1	1_2	2_1	2_2	3_1	3_2	4_1	4_2	5_1	5_2	6_1	6_2	7_1	7_2	Fall
2	1 Joshua							NR	NR			NR	NR			NR
	2 Sophia	2		5	11			4	4	5	14			12	12	A
	3 Mason	19		16		16		19	21	21		19		24	22	31
	4 Emily	13		17		17		13	12	16		12		17	16	19
3	5 Caleb	12		15		15		21	A	18		22		23	27	23
	6 Ryan	10	12													A
	7 Dylan			6		9		10	11	6		NR		10	10	13
	8 Lucas	14	18									2	3			13
4	9 Nathan			24	30			25	29			NR	NR			37
5	10 Mia	13		14		21	25			23		22	29			30
	11 David	3		5	NR			6	6	3	NR			NR	NR	7
	12 Brooke			23		24	25									33
	13 Victoria			29	32											41
	14 Brayden	9	15													22
6	15 Justin	25		31	31			42	39	35		37	47			43

Grade 2. Sophia, Mason, and Emily experienced increases of 2 to 12, 19 to 22, and 13 to 16, respectively, from their first pre-test to their last post-test in the summer. Mason experienced an increase of 12 and Emily experienced an increase of 6 from their first pre-test to their final September assessment.

Grade 3. Caleb, Ryan, and Dylan experienced increases of 12 to 27, 10 to 12, and 6 to 10, respectively, from their first pre-test to their last post-test in the summer. Lucas experienced a decrease of 14 to 3 from his first pre-test to his last post-test in the summer, and a decrease of 1, from his first-pretest to his final September assessment. Caleb and Dylan experienced increases of 11 and 7, respectively, from their first pre-test to their final September assessment.

Grade 4. Nathan experienced an increase of 24 to 29 from his first pre-test to his last post-test in the summer. He also experienced an increase of 13 from his first pre-test to his final September assessment.

Grade 5. Mia, Brooke, Victoria, and Brayden experienced increases of 13 to 29, 23 to 25, 29 to 32, and 9 to 15, respectively, from their first pre-test to their final post-test in the summer. David maintained a score of 3 on his first and last post-test in the summer. Mia, David, Brooke, Victoria, and Brayden demonstrated increases of 17, 4, 10, 12, and 13 from their first pre-test to their final September assessment.

Grade 6. Justin demonstrated an increase from 25 to 47 from his first pre-test to his last post-test in the summer. He also experienced an increase of 16 in his score from his first pre-test to his final September assessment.

Fluency. Fluency achievement data for children participating in the program is illustrated in Table 5. Achievement scores across the 7 weeks of the program and the final fall assessment are indicated. Fluency was assessed using a standard measure of *words read correct per minute (WCPM)*. Children read one passage for the assessment each week, and received a new passage for each week that they were enrolled. Typically, the new weekly passage also increased in difficulty. All of the children increased their fluency scores from their first pre-test to their final post-test in the summer. In addition, all of the children assessed in September showed increases in their fluency scores from their first summer pre-test. Grade-based analyses are discussed below.

Table 5. Pre-test and post-test scores of fluency assessment in WCPM

Grade	Participant	Week														
		1_1	1_2	2_1	2_2	3_1	3_2	4_1	4_2	5_1	5_2	6_1	6_2	7_1	7_2	Fall
2	1 Joshua							5.33	9.87			10.7	14.1			12.8
	2 Sophia	23.9		39.3	90.0			47.9	97.6	47.6	75.4			45.1	92.6	A
	3 Mason	52.5		52.0		34.0		56.0	105.0	53.0		39.0		72.0	80.0	103.0
	4 Emily	62.8		48.0		48.0		43.6	93.5	46.3		38.0		39.6	96.7	84.0
3	5 Caleb	42.9		31.3		29.0		17.0	A	15.0		24.0		20.0	48.0	46.5
	6 Ryan	35.8	87.0													A
	7 Dylan			37.3		28.6		23.6	60.3	34.8		28.9		37.9	85.5	54.3
	8 Lucas	25.0	UA									34.9	57.9			39.1
4	9 Nathan			71.0	153.0			58.0	126.0			32.3	123.9			119.0
5	10 Mia	49.0		49.0		52.0	99.0			43.0		39.0	80.0			78.8
	11 David	60.0		58.0	92.0			49.8	121.2	31.5	82.0			46.1	76.1	68.8
	12 Brooke			52.0		51.5	91.0									72.5
	13 Victoria			103.4	145.5											146.8
	14 Brayden	58.9	118.9													114.7
6	15 Justin	78.0		70.0	115.0			86.0	112.0	84.0		93.0	120.0			120.6

Grade 2. Joshua, Sophia, Mason, and Emily increased from 5.33 to 14.1, 23.9 to 92.6, 52.5 to 80.0, and 62.8 to 96.7 WCPM, respectively, in their fluency scores from their first pre-test to their last summer post-test. Joshua, Mason, and Emily increased in WCPM by 7.47, 50.8, and 21.2, respectively, from their first pre-test to their September assessment.

Grade 3. Caleb, Ryan, Dylan, and Lucas increased from 42.9 to 28.0, 35.8 to 87.0, 37.3 to 85.5, and 25.0 to 57.9 WCPM, respectively, in their fluency scores from their first pre-test to their last summer post-test. Caleb, Dylan, and Lucas demonstrated increases of 3.6, 17, and 14.1 WCPM, respectively, from their first pre-test to their September assessment.

Grade 4. Nathan showed an increase of 71.0 to 123.9 WCPM from his first pre-test to last post-test in the summer, and he increased his WCPM by 48 from his first pre-test to his September assessment.

Grade 5. Mia, David, Brooke, Victoria, and Brayden increased from 49.0 to 80.0, 60.0 to 76.1, 52.0 to 91.0, 103.4 to 145.5, and 58.9 to 118.9 WCPM, respectively, in their fluency scores from their first pre-test to their last summer post-test. They increased their fluency scores by 29.8, 8.8, 20.5, 43.4, and 55.8 WCPM, respectively, from their first pre-test to their September assessment.

Grade 6. Justin showed an increase of 78.0 to 120.0 WCPM from his first pre-test to his last post-test in the summer, and demonstrated an increase in his fluency rate by 42.6 WCPM from his first pre-test to his September assessment.

Clinical significance. A primary objective of reading instruction is often considered to be reading fluency (NRP, 2000), as being a fluent reader enables effective reading comprehension. Following this, a goal of the S.L.A.M. program is to increase fluency in participating children by the end of the summer. To assess children's fluency gains, children's achievement scores were placed in comparison to standard fluency benchmarks that have been established by several research-based groups (NRP, 2000). Benchmarks are illustrated in Table 6.

Table 6. Oral reading fluency benchmarks in WCPM

	Intervention	Instructional	Independent	Advanced
Kindergarten	No standard benchmarks			
Grade 1	34 or less	35 – 59	60 – 74	75 +
Grade 2	49 or less	50 – 79	80 – 95	96 +
Grade 3	69 or less	70 – 99	100 – 119	120 +
Grade 4	89 or less	90 – 119	120 – 135	136 +
Grade 5	99 or less	100 – 129	130 – 145	146 +
Grade 6	109 or less	110 – 139	140 – 155	156 +
Grade 7	119 or less	120 – 149	150 – 165	166 +
Grade 8	129 or less	130 – 159	160 – 175	176 +

As illustrated, within these standard benchmarks exists four categories: intervention, instructional, independent, and advanced reading fluency. Using these benchmarks and considering the grade that the children would be entering in September, several observations in relation to fluency development can be made.

To begin, based on the children's first pre-test scores, 12 of the 15 children began the program at an intervention level, and 3 children began at an instructional level. By the end of the summer program, 4 of the 15 participating children at the literacy program were brought to an independent fluency level and can be considered fluent at grade level, while 1 child reached the advanced fluency level. An additional 4 children reached the instructional fluency level, where fluency is developing. 6 of the participants remained at an intervention fluency level, but still made considerable increases in their fluency scores during their time spent in the program.

Qualitative Analysis

The quantitative analysis described above is a traditional method for examining the efficacy of a literacy program; however, this approach alone does not offer an inclusive lens. Absent from prior research on summer literacy programs are qualitative analyses of the contextual factors associated with children's experiences of the programs and their success. As such, a mixed methodological approach was adopted in this study, providing qualitative support from focus groups with program facilitators and a daily field journal from the acting researcher and Head Facilitator of the program. This multi-lens approach to exploring the summer intervention program allowed for an extensive examination of both the program achievement data and the contextual factors associated with delivering the S.L.A.M. program and the children's success in the program.

The qualitative research component involved the staff of the St. Catharine's program location and was carried out for the 7 week duration of the S.L.A.M. program. Focus-group interviews were conducted with the One-on-One Facilitators (Amanda and Sara) and the Recreational Facilitator (Rebecca) on a weekly basis, while the field journal was completed daily by the Head Facilitator. Upon completion of data collection, focus group interviews were transcribed. Following transcription, the focus group data were coded using a qualitative data analysis software. While several themes emerged during this process, the most frequent and dominant themes that recurred several times in the focus group data set were selected. Field journal notes were used to analyze and interpret each theme, while offering information to support reliability of interview data. The Head Facilitator engaged in a reflective process, as themes were viewed alongside journal data, to culminate a stronger overview of the program's efficacy.

Emerging from the data were 3 main themes: (1) motivation and perceived self-efficacy of children in the program, (2) instructional approaches implemented at the program, and (3) the importance of maintaining program structure and routine.

Motivation and perceived self-efficacy. The first theme that emerged from the data was the increased motivation and self-efficacy that the program facilitators noticed as the children progressed through the S.L.A.M. program. Facilitators often noticed a jump in motivation, as children's hesitancies about the program were overcome. In particular, the motivational tactics that were embedded in the program, meaningful and individualized instruction, and play-based activities

were suggested by the facilitators as instrumental factors contributing to the children's change in motivation and self-efficacy.

Children enrolled in S.L.A.M. for the first time were often unsure about what to expect. Many children thought that the program would resemble school, a place where they were not accustomed to achieving literacy success; however, this quickly changed as they experienced the program. Sara discussed how S.L.A.M. helps to motivate the children differently than school. She explained:

> *I think it feels like a less threatening environment. I think that they probably feel less different...cause I feel like at school, depending on how behind they are, they probably feel really different...it's pretty easy to get pointed out as the kid who can't read...so I feel like here they know that everybody's here for the same thing, like they're all here for the reading program and they all read together and not everybody's good at it and I think that helps.*

In particular, Sara described how one child was not "super thrilled" about the one-on-one instructional session at the beginning of the week, because "he didn't know what it was." She continued to explain how his motivation changed just five days later:

> *I took him today and he was hopping and skipping down the hall, and I [said] 'buddy we're doing the assessment' and he was like 'okay, I can do it!' Even with the fluency passage I noticed a*

difference. He was excited to read it. He'd say 'I think I can get them all right!'

Rebecca noticed a similar motivational change as she reflected on a conversation with a parent about the program. She described:

I had [a] mom come tell me today that she had a rough time when [her child] first started because [she] thought that it was [going to] be like a summer school…and [then] she told me that we're all doing a great job because [her daughter is] coming home saying that she wants to come back because she's having so much fun.

Amanda also reflected on an interaction with a parent, who described their child as someone who would cry and whine about going to his other literacy tutoring program. Amanda described the contrasting interactions that she had with the same child, demonstrating how the child's feelings toward literacy differ when at the S.L.A.M. program. She said:

He asks me all day, 'Can we go out in the hall? Can we go out in the hall and work? Can we go out in the hall and read?...So I think that's a huge difference...and he must perceive this program as more fun that his other, when we're doing basically the same thing...we're working on the same concepts and reading the same things.

These types of reactions from the children were common, and were noted by all of the facilitators. The facilitators outlined many reasons for the children's increase in motivation and self-efficacy as described above, including consolidating instruction with interactive games, and tailoring instruction to meet the literacy needs of each individual child. Facilitators offered meaningful instruction by personalizing the programming to reflect the age and interest of each child during one-on-one sessions, while the interactive activities used to engage the children in literacy practice were included at multiple points of the day. Referring to the literacy games that were integrated into S.L.A.M., Amanda explained that the children know that they are at a reading program and "they're still excited about it," because "they still enjoy just the little twist on it." She explained that one child spoke about the program saying, "Oh this is the most fun I've ever had!" Rebecca agreed, noting that one of the boys described the most enjoyable part of the day as he told her that the literacy stations were his favourite because they "get to play games" and he was "remembering stuff." Rebecca noted the differences that take place at the S.L.A.M. program. She explained: "We put a fun spin on it. We make games for them and we use stuff that appeals to their interest...we actually take the time to get to know them."

The S.L.A.M. program incorporates motivational tactics, including task-understanding and perceived self-efficacy, goal-setting, and monitoring and feedback, to support children in creating and achieving challenging yet attainable literacy goals. Facilitators believed that these tactics also contributed to the increased motivation and self-efficacy among children. Each of the four

motivational components was embedded in the one-on-one instruction and graphing that takes place at S.L.A.M. The children "responded well to the graph[s]" and made observations about their fluency progress that was displayed on their graphs. Amanda explained that through graphing, the children were more accountable for their learning and they were able to track their progress. Sara noticed that for one child, the visual display of the graph "helped him understand" his achievement because it was "concrete" and "explicit." More specifically, she expanded on the benefits of graphing by discussing task-understanding and the goal setting process:

> *We set goals together and we talk about how we're going to get [there] and what it means to be a fluent reader and what words [they] need to know, [and] what [they] need to work on. They know what they need to work on.*

By co-creating and achieving literacy goals, the facilitators noticed that the children demonstrated more confidence in their reading abilities as they began to "persevere" and "take more risks" during literacy activities. Sara described how when she suggested increasing the difficulty of a literacy activity, one boy responded with "Yeah! Let's make it harder!"

In addition to tracking their success on graphs, S.L.A.M. also offered children an opportunity to showcase their achievement and receive meaningful feedback from their facilitators, friends, and family members. Rebecca explained how two young girls ran to her to share their improvements and they "were so

proud of themselves." Amanda agreed, stating, "yeah, they love that!" Children regularly engaged in conversations about their personal success, and happily shared their graphs with those around them.

The reading success experienced by children enrolled in the S.L.A.M. program can be attributed to a number of factors. According to the program facilitators, an increase in motivation and self-efficacy supported the children's literacy success. Specifically, the motivational tactics that were embedded in the program, meaningful and individualized instruction, and play-based activities were instrumental in promoting success. Program coordinators, researchers, and stake holders in literacy development for vulnerable readers are encouraged to consider these components in the future design and implementation of summer literacy programs.

Instructional approaches. The varying instructional approaches that were integrated into the S.L.A.M. program emerged as a second theme from the data. Plans for each day incorporated both small and large group literacy activities, one-on-one instructional time, recreational activities, and specific time dedicated to building social skills. The facilitators found that together, these instructional approaches at S.L.A.M. contributed to the children's success in the program.

The facilitators indicated many benefits of the small group literacy stations. Each small group was composed of 3-4 children, reading at similar levels. The groups of children cycled through literacy stations led by staff or volunteers. The stations included four different literacy components: phonics,

sight words, writing, and fluency. Of the many benefits that the facilitators recognized, Amanda highlighted the companionship and comfortableness that emerged more seamlessly when working in a small group. She explained that small groups were valuable because the children grew "closer" and the "team work" among them was evident.

Another benefit to small group literacy stations, presented by Amanda, was the low adult-child ratios, with each group of 3-4 children having an adult available who was "guiding that activity" and giving them the "attention that they need." Amanda explained:

> *I think it's the smaller groups that help a lot with [the children's enjoyment at the program]. Even the kids that are a little bit shyer – because it's small groups through literacy... they feel more comfortable and are able to learn more and even [the facilitator] is able...to focus on each child as they play, which I think helps a lot.*

The low adult-child ratio for the small group literacy activities allowed for more focused attention on each child and their individual literacy needs. Rebecca added that the small groups also offered a support system for the children, as she noticed that they were encouraging each other and complimenting one another. In turn, this helped to "boost their self esteem" and motivated them to work harder at their literacy tasks because they were being supported by their peers.

Sara also called attention to a social skills aspect of the program as being an important contributor to the children's success and confidence in literacy. At the end of the literacy stations each morning, the children would gather in a circle to review the Class Success Chart. This chart included the children's names and a box for each of the 5 days in the program's week (Monday-Friday). As the children were individually called upon, the other children were encouraged to recognize something positive that the child achieved during the recent literacy block. Then, the child would place a stamp beside their name to recognize their success. Sara further explained:

> *Having [the Head Facilitator] sit around in a circle with them and have them say good things about what their group members did during the literacy stations...I think that's helped...they're more motivating towards each other than they were last year and I think that's making a difference...because I think it's making them notice what their group members are doing and they understand that when [they] hear something good about themselves from a friend it makes them feel good. So I think they're more likely to [support] each other now too.*

The social skills component above is an instance of the positive effects of the children collecting as a whole group and working toward achieving success together. Amanda further supported the benefits of working as a larger group:

> *That's the one benefit of such a large group and [everyone] working towards similar things and having similar goals too...They can kind of work together on all those things and have a better understanding...that they're all working towards literacy together...In the large group they all see that they're working towards different things and still...working together in that way too.*

Although the phrase "large group" was used, the maximum number of children at the S.L.A.M. program each week was 14. As such, even whole group activities still benefitted from low adult-child ratios. Amanda reiterated that the closeness and bonding experienced by the children was supported by the total number of children present at the program. She explained:

> *And I think it helps too because we do only have 14 kids so they do get to know each other very well, whereas a classroom could have 30 or a camp could have 100...so I think [by] having only 14 they get to know each other really well and get comfortable with each other and become friends.*

Sara further described:

> *And I think it teaches them how to have friends too...because some of them might find that difficult [in very large groups]. I think in here it's a very supportive environment. We facilitate a*

> *lot of opportunities for them to work together and become friends...so I think it helps [them] in here because it's a [smaller] group and they might not get that outside of here.*

The recreational component of the program was also recognized as a contributing factor to the children's success. This part of the program was focused on further developing social skills and literacy, while engaging in cooperative games and activities as a whole group. The recreational (and some literacy) activities for the week were driven by a weekly theme that was co-created by the program coordinator and facilitators. The purpose of the themes was to engage the children and shape activities to reflect their common interests. Sara emphasized the importance of the recreational activities while reflecting on the Olympic themed week:

> *I think the theme this week was really motivating. I think it was something that was really relatable for them...and it was tangible...so I think that helps because it's something that they can really get on board with because it was happening [this summer] and everybody's talking about it. There's a lot of Olympic themed stuff going on right now, and I think that made it more relatable for them.*

Similarly, Sara and Amanda noticed how the recreational activities impacted the children's success during the one-on-one instructional block

with them. In regard to the talent show themed week and activities, Sara explained:

> *I think [the talent show] brought them closer together. It brought them more together as a cohesive group and I think that transferred into the literacy, I really do. Because when we were out in the hall [for one-on-one], they were definitely more supportive of each other...they're helping each other, they're reading books together, and to each other...It's really nice...One [child] will read a bit and if one gets stuck on the word the other just helps. They don't let their friends struggle with their words...They help them out...but they're taking turns and they're letting [each other] try...and I think that made them more successful. [They know] they can rely on each other, [and] they can rely on themselves.*

The S.L.A.M. program was unique in its diverse instructional approaches that were balanced throughout the day. By offering opportunities for the children to work in a large group to develop social skills, engage in recreational activities, and complete some literacy tasks, a sense of community was formed. Within this community, small group and one-on-one literacy remained the focus, promoting explicit and individualized learning opportunities for each child. This unique balance of instructional approaches offered a literacy-rich learning environment where the children could feel safe and supported. As such, this approach to

instruction is recommended for those considering the implementation of a summer literacy program for vulnerable readers.

Structure and routine. Structure and routine emerged as another theme from the data. The S.L.A.M. program adopted an approach to structure that was consistent yet flexible. Consistency in the schedule was achieved through the regular review of a daily agenda, alarms/bells to signify breaks, co-created and explicit expectations, and transitional warnings. Meanwhile, the structure remained flexible enough to adapt to the children's individual and unpredictable needs, the weather, and classroom interruptions. Facilitators noticed that a consistent structure and routine contributed to more successful learning and positive behaviour throughout the day. Specifically, one facilitator pointed out that some of the children enrolled in the program suffered from "stress and anxiety", and noticed an improvement in these behaviours among some children with the implementation of consistent structure and routine. She further explained:

> *I think that [structure] impacts the literacy aspect too because now [the children] are not concerned or worried or stressed about what comes next or what's happening, because they're comfortable in here with us and with their friends....they know that there's a schedule...that's not something that they need to focus on. They can put more energy and focus towards the task and not what comes next.*

Amanda agreed, stating that the daily repetition of the schedule and having the "same routine" each day allowed children to be "aware" of what is to come. She added that after understanding and adapting to the structure, the children were "noticeably calmer and less chaotic" and they seemed more "comfortable" at the program. This increased level of calmness and comfort in the classroom created a more favourable learning environment where children felt at ease to take risks and explore literacy.

Facilitators also felt that by reviewing the agenda for the day each morning, the children were more prepared to encounter the day. In particular, Sara mentioned that discussing the recreational activities in the morning (which occur in the afternoon) was beneficial for the children, because these activities were less consistent than the literacy routine. She explained:

> *Telling them [the recreation activities] is better than leaving it as a surprise because although it's hard for them to contain their excitement, I think a lot of them can't handle the 'what if,' ...because their mind is thinking about it...so I think that distracts them from what they could be doing.*

Rebecca agreed by reflecting on one of the recreational activities that involved baking. She stated:

> *I started letting them know what my afternoon activities were...and they were responding really well to it. Especially*

today with the cookies, knowing that they were doing cookies, I think settled a lot of them.

By reviewing the agenda for the day each morning, the children were able to ask questions, prepare themselves for the day, and understand what they would be doing at the various blocks of time throughout the day. Similarly, the transitional warnings and the repetitive alarms to signify each break helped to maintain a consistent routine for the children. Taken together, these strategies created opportunity for successful instruction and an overall more relaxed learning environment.

In comparison, facilitators recalled one of the more trying weeks at program, and described a lack of structure and disruption to the daily routine as one of the primary causes for the challenges that they experienced. In the aforementioned week, a health concern arouse at the program, requiring several unpredictable changes to the program's routine – including a change in the order and location of activities, as well as a change to the physical environment (i.e. removing the carpet that the children typically sat on for circle time). Rebecca recalled the children's reaction to a specific change in the recreation programming she had planned. She stated, "We came inside because I had planned to do an activity, but we didn't do the activity [and] that's when they were silly and not listening." Sara also described that what she interpreted as "unsuccessful" during that particular week was likely due to "...the change in structure." She added:

Just basic things, like they're used to sitting on the carpet at certain times and we were trying to avoid the carpet, so I think that king of threw off the structure of a lot of it too.

Finally, the facilitators recognized that having children enroll for subsequent weeks in the S.L.A.M. program affected the structure and routine in a positive way. They noted that when they had children return to the program for multiple weeks, it was beneficial because "they were familiar with the program and the structure." Not only did this allow for a more seamless implementation of the program plans, but the facilitators also noted that they were able to employ existing strategies (instructional and behavioural) based on the child's individual needs, that had been developed for the child during their previous weeks at the program. As such, the facilitators were able to effectively differentiate instruction and focus on supporting the individual needs of the diverse children at the program, ultimately supporting their literacy success.

The desired consistency at S.L.A.M. was achieved on most days of the summer program, and can be attributed to the strategies implemented by the program facilitators. As such, maintaining a firm yet flexible structure and routine at S.L.A.M. was an integral part of the program's success and should be considered for future design and implementation of literacy-based programs for vulnerable readers. In addition, parents, guardians, and program coordinators are encouraged to consider the benefits of enrolling children for multiple weeks in a summer literacy program such as S.L.A.M.

Overview of Results

The findings outlined throughout Chapter Five point to the importance of supporting vulnerable readers during the summer months. Specifically, the results showed increases in the fluency scores of all participating children from their first pre-test to their final summer post-test, as well as the increase of fluency scores from their first pre-test to their September post-test. From this, we see that children who enrolled in the S.L.A.M. program did not experience summer learning loss, and were even able to make achievement gains during their time in the program. The alleviation of the summer learning gap and subsequent achievement gains can be partially attributed to the three key factors outlined in the qualitative results of the study, including: (1) motivation and perceived self-efficacy of children in the program, (2) instructional approaches implemented at the program, and (3) the importance of maintaining program structure and routine.

CHAPTER SIX: DISCUSSION

The Summer Learning Loss Phenomenon results from a reoccurring challenge that children face during the summer vacation period. Research has demonstrated that during the summer, children are at risk of losing academic knowledge and skills that they gained in their previous school year (Cooper et al., 1996). This research has encouraged stakeholders to explore ways to prevent the summer learning gap, based on the idea that support throughout the summer may reduce the academic losses that children experience. As such, several approaches have been taken throughout the field, each aiming to support students in the summer. In particular, research has elucidated that certain groups of children are more susceptible to the summer learning gap, including children with learning disabilities (Menard & Wilson, 2014). For the past 5 years, the Learning Disabilities Association of the Niagara Region has responded to this gap by designing and implementing a summer intervention program for children with reading difficulties, called S.L.A.M.

A number of large-scale studies have demonstrated the efficacy of summer intervention approaches through quantitative measures. The current study built on these frameworks using a mixed methodological approach to explore the program's efficacy and the perceived experience of participants at S.L.A.M., while also exploring the sustainability of the children's literacy gains into the fall school year. Through this approach, academic achievement of the participants and contextual factors associated with the program were available for analysis. Quantitative results revealed that children participating in the summer program

demonstrated achievement gains that reduced and sometimes reversed the summer learning loss phenomenon. The quantitative data suggested that summer intervention programs, such as the one offered by the Learning Disabilities Association of the Niagara Region, are fundamental in addressing the summer learning gap for vulnerable readers. In addition, qualitative results illustrated themes of motivation and perceived self-efficacy, instructional approaches, and structure and routine as important factors contributing to the children's success in the program. These results suggest contextual factors such as those mentioned above are necessary to consider for summer intervention programs for children with learning disabilities. The study outcomes are further explored throughout this discussion.

Achievement Gains

The first research question leading this study was focused on achievement gains made by the children participating in the S.L.A.M. program. To effectively address this question, attention should be directed to the goal of the program. S.L.A.M. is an intervention program focused at supporting the literacy needs of vulnerable readers throughout the summer, with a goal of building strong readers. In other words, the program is not aimed at developing *word readers,* but rather *fluent readers*. The National Reading Panel (2000) defines reading fluency as the ability to multi-task while reading, in order to engage in word recognition and comprehension simultaneously. As a child begins to read fluently, the cognitive demand for word recognition is lessened, and they are able to focus on other functions (i.e. drawing inferences for comprehension). At the S.L.A.M. program,

sight word and phonics instruction, in combination with the repeated fluency reading, supported the children in becoming more fluent readers.

When examining the general trajectory of fluency scores in Table 5, the children's achievement gains are clear. Each of the fluency scores is considerably higher at the child's final summer post-test, than it is at their first pre-test. As previously mentioned, some fluency scores appear to drop or remain the same over the summer; however, the children received a new fluency passage each week, and it typically increased in difficulty, which can help to explain this drop. For instance, if Table 5 is used to follow Participant 4 (Emily) from week 1 to week 7, her fluency success is clear. Emily achieved 62.8 WCPM on her first pre-test during week 1 of the program. Over the course of her 7 weeks at the program, Emily maintained a score between 38 and 48 on her fluency pre-tests, while the passages that she read increased in difficulty as the weeks progressed. Her exceptional gains can be seen on her week 7 post-test, where she achieved 96.7 WCPM by the end of the week. In these scores, we see that Emily not only increased her words read correct per minute, but also did so with increasingly difficult passages.

Similar increasing patterns can be observed in Tables 2, 3 and 4, while following the children's assessment scores for phonics, phonemic decoding, and sight words. Most of the children demonstrated increases from their first pre-test to their last post-test, while all of the children demonstrated gains following a general trajectory throughout the weeks. By observing Emily's achievement on her other assessments, the patterns of success are evident. Table 2 represents

scores from the LDANR phonics assessment, and showcases Emily's increase in her scores from 172 on her week 1 pre-test to 243 on her week 7 post-test. Her phonemic decoding achievement on the TOWRE assessment (Table 4) was also positive, with a score of 13 on her week 1 pre-test and 16 on her week 7 post-test. Similarly, Table 3 represents the children's achievement on the Dolch sight word assessment, where Emily jumped from 154 correct words on week 1, to 300 correct words by the end of week 7. In general, on each of these three assessments, Emily's scores increased across the 7 weeks, with the exception of minor drops in her score occasionally throughout. Even when Emily experienced a small drop in her assessment score in one of these three components, it still remained very close to her original pre-test score.

For the children who enrolled in the program on week 1, holding their scores above or around their first pre-test scores was important. With school ending on the last week of June, and the S.L.A.M. program beginning the very next week, it is expected that week 1 pre-test scores would be high and somewhat representative of each child's typical achievement while in school. Research would dictate that as children with reading disabilities progress through the summer without an intervention program, they will experience significant regression in their reading scores (Menard & Wilson, 2014). Following this, without the S.L.A.M. program, previous research in this area would predict that week 1 scores would drop throughout the summer, as children experience the summer learning loss. As such, the maintenance and increases in achievement that were demonstrated from the children's first pre-test to their final summer post-

test, are indicative of not just successful program achievement, but also the alleviation of the summer learning loss phenomenon.

September Achievement

As previously mentioned, research would tell us that from June to September there is a significant loss in learning for all students (Cooper et al., 1996). With vulnerable readers, we expect this drop to be even more dramatic (Menard & Wilson, 2014). For the children enrolled in the S.L.A.M. intervention program, not only did their scores not drop from July to September, but they improved. Coming back to the ultimate goal of the S.L.A.M. program, and observing the children's fluency sores from their first pre-test to the September assessment, we see that all of the participants demonstrated achievement gains.

The maintenance and improvement of achievement over the summer is important for all of the participants; however participants like Caleb (5) demonstrate how this is especially true. Caleb was enrolled in the S.L.A.M. program for its entirety (7 weeks), and only increased his fluency score in WCPM from 42.9 in week 1 to 46.5 in September. While this increase is small, it should be noted that Caleb, who entered Grade 3 in September, was reading a Level D passage at the beginning of the program, and a Level M passage by the end. These levels are approximately equivalent of a Grade K-1 passage (Level D) and a Grade 2-3 passage (Level M). For a child like Caleb, the 8-9 week summer vacation had the potential to negatively impact his previously acquired academic knowledge and skills. With his enrollment in the S.L.A.M. intervention program,

not only did Caleb not experience any summer learning loss in his fluency, but he was also able to increase his reading passage by several levels, allowing him to enter Grade 3 in September with much stronger literacy skills than when he left Grade 2 in June.

While no fluency achievement drops were observed between the time period when children entered the program and their final post-program assessment, there were some observable decreases between their final assessment and the follow-up assessment during the September school year. This may be indicative of the summer learning gap, as children did not receive specific literacy instruction during this time. Even for children who enrolled in S.L.A.M. program for 7 weeks, there was approximately 10 days between the end of summer programming and the beginning of school. These drops in achievement further point to the importance of maintaining knowledge and skills over the summer with academic support.

Outliers

Within the S.L.A.M. program, there were achievement scores that did not follow the typical trends observed with the participants' achievement. These outliers were observed throughout each of the assessment components. By using the qualitative data acquired for this study, possible explanations can be explored.

One surprising result was observed with children that were only enrolled in 1-2 weeks of programming. Some of these children maintained, or even increased in September assessment scores from their earlier assessments.

Research would dictate that following the 1-2 weeks of literacy support, academic knowledge and skills would begin to decline, and therefore we would expect a decrease in children's scores on their September assessment; however, this was not always the case (Menard & Wilson, 2014). For example, Participant 12 (Brooke) was only enrolled in the S.L.A.M. program during weeks 2 and 3. By observing her sight word scores in Table 3, we can see that she achieved 300 correct words on her week 3 post-test, and achieved the same score again on her September assessment. While this information does not align with existing research on the summer learning gap, Brooke's mother indicated to the program facilitators that Brooke received private tutoring multiple times per week following S.L.A.M. Brooke's additional literacy support helps to clarify her unexpected results on the September assessment.

Although extra literacy support that children received outside of the S.L.A.M. program was not monitored in this study, we can refer to the abundance of existing research to conclude that the summer learning loss phenomenon would exist for our vulnerable readers, without academic support over the summer (Menard & Wilson, 2014). Following this, inferences can be made that children with these unusual assessment results in September, after several weeks without the S.L.A.M. program, likely received additional literacy support elsewhere.

Another result illustrated in Tables 2-5 that was atypical was an 'NR.' This acronym represents an assessment that was 'not recorded.' While the facilitators may have attempted the assessment, they were unable to reach a recordable result for many possible reasons, including behavioural concerns and

children's stress and anxiety. For instance, Table 4 represents the TOWRE phonemic decoding component of the assessment, whereby children are provided with a time limit to read as many phonics principles as possible. This is an assessment component that was challenging for some children. In Table 4 we see 'NR' indicators on weeks 2, 5, and 7 for Participant 11 (David). In this case, David was anxious about the timer associated with the particular phonics assessment. Some days, this anxiety was worse, and some days it appeared to not affect his assessment performance. After noticing some stress about this assessment component, the One-on-One Facilitator would check in with David to see if he wanted to try the assessment each week. Although an 'NR' indicator is not ideal for the purpose of analyzing results, it represents the reality of the S.L.A.M. program, and the diversity of needs, personalities, and behaviours among the children at the program. Ultimately, this type of result points to the importance of the individualized nature of the program and the personal support that the children received.

Implications

There are several policy, practical, and research implications emerging from the results of this study. From a policy perspective, the results will lend support to Provincial ministries in building an understanding of the importance of summer programming for vulnerable readers. The quantitative results of this study point to the importance of summer literacy programming for children with reading difficulties. Moreover, they help shape what effective programming might look like. Through the qualitative component of the study, program

facilitators indicated several factors contributing to the overall success of the S.L.A.M. program, and in turn contributing to the individual success experienced by the children in the program. From here, the focus of provincial ministries and local organizations should be to put resources into the implementation of summer literacy intervention programs, reflecting the design of the S.L.A.M. program. Further, since the results of the study supported the effectiveness of such programs, considerations should be made for subsidization of future programs, in order to increase accessibility for children and their families.

In addition, an adjusted school calendar should be considered by provincial bodies. While further research is required to explore the most suitable length for a vacation period, schools should aim to reduce at least some of the time that children spend consecutively away from school. Some schools across North America have already made some adjustments to the traditional school calendar, and have noticed positive results. One of these include Roberta Bondar Public School in Brampton Ontario, where students receive the same number of school days and follow the same curriculum, but the vacation periods are spread more evenly across the year. A pilot study completed by the Peel District School Board compared Roberta Bondar Public School with another school following a traditional calendar, and found that students at Roberta Bondar Public School recalled more information following breaks, which in turn lessened teacher review time. In particular, the study showed that students with English as a second language, and students with learning difficulties benefited the most from this modern calendar. Moreover, in the realm of provincial testing, the Grade 6

students at Roberta Bondar School improved performance in reading, writing, and mathematics. Several similar year-round schools exist throughout North America, with six schools hosted by the Calgary Catholic School District School Board. With the effects of the summer learning loss phenomenon in mind, and the results of the current study pointing to the benefits of academic support throughout the summer, an adjustment to the traditional 8-9 week summer vacation period is recommended.

The implementation of a summer literacy program should reflect the results of this study, to effectively support the literacy needs of vulnerable readers. The program design was evidence based, combining theoretical research and empirically-driven approaches to cultivate an effective summer intervention program. In particular, the S.L.A.M. program included an embedded-explicit instructional approach to target the literacy skills of vulnerable readers (Justice & Kaderavek, 2004). In addition, each day was structured to include plenty of small group literacy instruction, offering benefits such as more efficient use of time and resources, as well as opportunities for peer and teacher interaction (Polloway et al., 1986). One of the facilitators highlighted these benefits in a focus group interview, indicating that the children seemed to feel more comfortable in the small groups, and the adult working with the children was able to focus on more on each child's needs. Taking into consideration the diverse ages and reading levels of the children, multiple opportunities for children to work one-on-one with a literacy instructor were provided, as one-on-one literacy support has proven to be an effective approach in reading intervention (Elbaum et

al., 2000). Specifically, one of the facilitators stated in a focus group interview that the children "excel so much" at S.L.A.M. because they receive a lot of one-on-one and small group instructional time, and because the learning is 'individualized." Furthermore, the program aimed to address five component literacy skills and include plenty of opportunity for print exposure, both elements outlined as crucial for effective literacy instruction by the National Reading Panel (2000). Finally, motivational tactics aimed at developing the children's self-regulation were included in the S.L.A.M. program. Research demonstrates that the development of self-regulation in children supports the development of academic knowledge and skills, by supporting children as they learn to better focus attention, control emotion, manage stress, engage in reflection, and participate in positive interactions (Blair & Raver, 2015). In the focus group interviews, one of the facilitators supported this research by explaining how the children's intrinsic motivation changes from Monday to Friday at the program as they experience the motivational components embedded in the program. She stated that the children persevere and are "more likely to try things" and "take more risks when they're doing the literacy activities." Taken together, the program components that make up the S.L.A.M. program cultivated an environment that supported children's learning and development throughout the summer months. Each of the above mentioned design components of S.L.A.M. should be considered for the future implementation of summer intervention programs for vulnerable readers.

The results will also guide future research. Research in the field has pointed to the existence of the summer learning gap. This is particularly true for vulnerable readers. The results of the current study have pointed to the important idea that summer based interventions can alleviate the summer learning loss for vulnerable learners. Continuing research in this field can begin to explore various models of intervention duration, intensity, and curriculum around summer learning. Research may consider balanced models of intervention while maintaining the essence of a summer vacation for students and educators. As mentioned previously, there are school boards that have explored various models of year-round schooling and from here research can continue to study the most effective models of schooling.

Limitations

The use of predominantly American research is one limitation of this study. It is important to recognize that there is very little existing research surrounding Canadian schools and the summer learning loss phenomenon. However, similar results would be expected to emerge within Canadian studies, as this phenomenon has more to do with the notion of children not reading during the summer months, rather than the quality of education and curriculum that exists in the school system.

Convenience sampling was used in this study, as child participants were selected from the St. Catharines S.L.A.M. program location. Exclusion criteria were applied based on enrollment at more than one program site and behavioural

concerns. Children were invited to participate in the study based on the number of weeks that they were enrolled in the program, to provide a comprehensive overview of the program's effect based on time enrolled. In addition, children were excluded from the study if a behavioural concern considered to potentially impact their program participation was noted in the application submitted by their parents/guardians. While convenience sampling can be considered limited in its representativeness, it was selected to allow for the study to focus on the St. Catharines program site. This is the site where I acted as the Head Facilitator, and was therefore able to maintain a daily field journal, noting program observations over the course of 7 weeks. This provided unique insight and valuable information regarding the contextual factors associated with the program's efficacy.

Acting as both the Head Facilitator and Principle Investigator is a limitation of the current study. Ethical steps were taken to identify this dual role and potential conflict of interest. In an effort to minimize the limitation, full disclosure of this conflict of interest was offered to all parties involved, including the research participants and the Learning Disabilities Association of the Niagara Region. By acknowledging a potential conflict before proceeding with the study, effective management of rights and responsibilities in each role was planned for and carried out. In an effort to reduce power imbalances, focus-group interviews were included instead of individual interviews, with the goal of shifting the power from the researcher to the participants (Kitzinger & Barbour, 1999; Wilkinson, 1998). In addition, in moderation of the focus groups, a conscious effort was made to

restrict the participation and sharing of personal views, in order to avoid introducing bias (Gill et al., 2008). Holding both of these positions was fundamental in this research, as it allowed me to fully immerse myself in the program and the day-to-day activities and interactions, ultimately providing valuable and holistic insight into the effectiveness of the program.

An additional limitation was the small sample size of 15 participating children, which reflected the low program capacity. With this number, the S.L.A.M. program was able to better support the children by offering more opportunities for small group and individualized literacy instruction for each child. To create results that can be easily generalized, a larger sample size is encouraged for future research; however maintaining the small group and one-on-one literacy support is recommended. Similarly, the focus-groups included three participants, as these were the only facilitators at the program full time. Although this was a small focus-group, participants were fully immersed in the program every day, and were able to offer extensive information surrounding its efficacy. In addition, the smaller nature of the group provided participants with more opportunities to fully share their ideas. Again, slightly larger focus-group sizes are encouraged for future research, providing that participants are able to reflect on the program's entirety.

There are some limitations to consider surrounding the fall assessments that took place. Although most of these assessments were conducted within a 2 day period within the first two weeks of school, two assessments were scheduled about a week later due to the unavailability of the parents and their children, and

an additional two assessments were not conducted due to lack of parent response. While the first few weeks of school have the potential to affect children's achievement scores, educational resources from the Elementary Teacher's Federation of Ontario (ETFO) and the Ministry of Education suggest that the beginning of the school year requires teachers to focus on more than just academic instruction. *The Heart and Art of Teaching and Learning: Practical Ideas and Resources for Beginning Teachers* document highlights the importance of teachers spending time at the beginning of the school year building a classroom community of inclusion (ETFO, 2011). Similarly, the *Growing Success* document points to the importance of conducting diagnostic assessments at the start of the school term to determine students' readiness to learn new knowledge and skills (Ministry of Education, 2010). While it is assumed that instruction still takes place during this time, teachers that follow these guidelines would consequently spend less time with academic instruction during the first days and weeks of a new school year.

Another limitation to consider is that alternative academic support was not controlled for. As such, it is possible that children may have received literacy support from parents/guardians, tutors, or other enrichment programs. While this could have an effect on the results of the study, it was important to encourage children to engage in as much literacy support as desired.

A final limitation was the lack of a control group. A control group receiving no intervention program, matched for age, gender, and reading level could be included in future studies to ensure that the achievement gains were a result of the

intervention program, but was not included for both ethical and practical concerns. This limitation was related to the convenience sampling used in the study. The sample used in this study was part of an existing program offered by the LDANR and as such, was restricted by the existing constraints of the program offering.

Conclusion

The study described here was designed to test the efficacy of S.L.A.M., a summer learning program designed to support vulnerable readers. Research in this area has pointed to the idea that vulnerable readers are particularly prone to the summer learning loss presented by the two months away from schooling. The results of the current study support the idea that intervention throughout the summer months can be an important tactic in not only alleviating the summer learning loss but also in increasing literacy scores in vulnerable readers. The maintenance or increase in literacy scores positions children well to commence their next year of schooling. The results here hold important implications for how children can be supported over the summer. It is important to note that these results do not indicate that an alternative program to replace school is necessary, but rather emphasize the need for some form of literacy intervention and support for children with LD during the summer months. The results may inform policy makers to consider various models of schooling that support children's learning throughout the entire year.

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Appendix A. Brock University Research Ethics Clearance

Brock University
Research Ethics Office
Tel: 905-688-5550 ext. 3035
Email: reb@brocku.ca

Social Science Research Ethics Board

Certificate of Ethics Clearance for Human Participant Research

DATE: 6/15/2016

PRINCIPAL INVESTIGATOR: MCNAMARA, John - Child and Youth Studies

FILE: 15-301 - MCNAMARA

TYPE: Masters Thesis/Project STUDENT: Melanie Grice
SUPERVISOR: John McNamara

TITLE: S.L.A.M.: A study of summer literacy and motivation for children with reading difficulties

ETHICS CLEARANCE GRANTED

Type of Clearance: NEW Expiry Date: 6/30/2017

The Brock University Social Science Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University's ethical standards and the Tri-Council Policy Statement. Clearance granted from 6/15/2016 to 6/30/2017.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 6/30/2017. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:

a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;
c) New information that may adversely affect the safety of the participants or the conduct of the study;
d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved:

Kimberly Maich, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.

Appendix B. Consent Forms

Informed Consent (Participating Child's Reading-based Data)
Date: **June 30th 2016**
Project Title: **S.L.A.M.: A study of summer literacy and motivation for children with reading difficulties**

Principal Investigator:
John McNamara
Professor, Child and Youth Studies, Brock University
Tel: **905.688.5550 ext 3835**

Principal Student Investigator:
Melanie Grice
Email: **mg10mi@brocku.ca**

INVITATION

You are invited to participate in a study that involves research. The purpose of this study is to develop and measure the effects of S.L.A.M., The program that you have your child enrolled in through the Learning Disabilities Association of Niagara. The research will be conducted by Melanie Grice, a graduate researcher from Brock University who is partnering with the Learning Disabilities Association of Niagara to measure the effectiveness of S.L.A.M. Melanie Grice is also the Head Facilitator at the S.L.A.M. program.

WHAT'S INVOLVED

Your child will be participating in the S.L.A.M. program regardless of your participation in the study component of the program. If you choose not to be included in the study, your child will continue to receive program. Part of the regular programming involves assessing your child's reading skills on the first and last day of programming each week. This data is typically gathered for your reading report to give you information about your child's reading needs. If you choose to accept the invitation to participate in the program study, the reading-based data that is typically collected on the first and last day of each week of the program will collected and used to assess the general usefulness of the S.L.A.M. program. The data will be collected by your child's facilitator (as normal) but will also be used in a general data set that Melanie Grice will analyze to assess how well the S.L.A.M. program is working. In addition, you will be contacted following the program's completion (once the Fall school year begins) for one

additional assessment. Overall, we are interested in whether the S.L.A.M. program is increasing participating children's reading scores and promoting sustainable literacy gains.

POTENTIAL RISKS

Please note that Melanie Grice will be acting as both the Head Facilitator of the S.L.A.M. program and the Principle Student Investigator of this study. Careful planning will take place to eliminate any foreseeable conflicts of interest between Melanie's roles. Participant anonymity and confidentiality will be maintained by Melanie. Your decision to participate or not is totally up to you and you may discontinue at any point during the program.

CONFIDENTIALITY

All information you gathered is considered confidential; your child's name will not be included or, in any other way, associated with the data collected in the study. Furthermore, your child will not be identified individually in any way in written reports of this research. Data collected during this study will be stored at Brock University with Dr. John McNamara. Data pertaining to the research study will be kept for 10 years after which time it will be destroyed. Access to this research data will be restricted to the research team, consisting of Melanie Grice and Dr. John McNamara. The LDANR will have access to the student thesis resulting from this study, which will not have identifying features of participants.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to participate in any component of the study. Further, you may decide to withdraw from this study at any time and may do so without any penalty or loss of benefits to which your child is entitled. Participation or withdrawal at any time from the study will have no bearing on your child's involvement in the S.L.A.M. program. If you choose to withdraw from the study, all of the data collected from you will be destroyed, with the exception of the reading achievement tests collected by the LDANR as part of the regular program offerings. Deadline for participant withdrawal will be September 30 2016.

PUBLICATION OF RESULTS

Results of this study may be published in professional journals and presented at conferences. Feedback about this study, including an executive summary and a summary report of achievement is available upon request by contacting the principal investigator or principle student investigator at the above addresses.

This feedback can be expected in August 2017. As per normal program offering, individualized feedback on your child's reading achievement is available regardless of participation in this study.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Principal Investigator or Principal Student Investigator using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (file 15-301). The Research Ethics Office at Brock University is available to provide answers to pertinent questions about the research participants' rights: reb@brocku.ca 905-688-5550 ext. 3035.

Thank you for your assistance in this project. Please keep a copy of this form for your records.

CONSENT FORM

Parent Consent on Behalf of Child

I agree to allow my child to participate in the study. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

Name: _____

Signature: _____

Date: _____

Informed Consent (Facilitator Focus Groups)
Date: **June 30th 2016**
Project Title: **S.L.A.M.: A study of summer literacy and motivation for children with reading difficulties**

Principal Investigator:
John McNamara
Professor, Child and Youth Studies, Brock University
Tel: 905.688.5550 ext 3835

Principal Student Investigator:
Melanie Grice
Email: **mg10mi@brocku.ca**

INVITATION

You are invited to participate in a study that involves research. The purpose of this study is to develop and measure the effects of S.L.A.M., The program that you are involved in through the Learning Disabilities Association of Niagara Region (LDANR). The research will be conducted by Melanie Grice, a graduate researcher from Brock University who is partnering with the Learning Disabilities Association of Niagara to measure the effectiveness of S.L.A.M. Melanie Grice is also the Head Facilitator at the S.L.A.M. program.

WHAT'S INVOLVED

You will be employed through the LDANR at S.L.A.M. regardless of your participation in the study component of the program. If you choose not to be included in the study, you will maintain your current status of employment at the program. We are interested in holding focus groups for S.L.A.M. facilitators about their experience and observations within the program. These focus groups will allow us to assess how well the S.L.A.M. program is working and whether we need to make any changes to improve it. Focus groups will be conducted during the program time. Focus groups will be facilitated by Melanie Grice. There will be 7 focus groups, 1 per week, and they will take about 30 minutes each. Focus groups will take place at the S.L.A.M. program location. Focus groups will be audio recorded and analyzed. When focus groups are analyzed, your name will not be used and qualitative data from the focus groups will be used with the intent of making the data anonymous to all those other than the

Principal Student Investigator and the Principal Investigator. Refer to the confidentiality section below.

POTENTIAL RISKS

Please note that Melanie Grice will be acting as both the Head Facilitator of the S.L.A.M. program and the Principle Student Investigator of this study. Careful planning will take place to eliminate any foreseeable conflicts of interest between Melanie's roles. Participant anonymity and confidentiality will be maintained by Melanie. Your decision to participate or not is totally up to you and you may discontinue at any point during the focus group. Melanie Grice and John McNamara will be the only individuals aware of the participating facilitators.

CONFIDENTIALITY

All information you provide is considered confidential; your name will not be included or, in any other way, associated with the data collected in the study. Furthermore, you will not be identified individually in any way in written reports of this research. Data collected during this study will be stored at Brock University with Dr. John McNamara. Data pertaining to the research study will be kept for 10 years after which time it will be destroyed. Access to this research data will be restricted to the research team, consisting of Melanie Grice and Dr. John McNamara. The LDANR will have access to the student thesis resulting from this study which will not have identifying features of participants, as well as de-identified transcripts from the interviews. Although efforts will be made to maintain anonymity, given that interviews are conducted at the S.L.A.M. program location and based on the comments made during the focus groups, participant confidentiality cannot be guaranteed. In addition, although interview data is identifiable by the Principal Student Investigator and the Principal Investigator, participants names will be changed with the intent to anonymize the data.

VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any time and may do so without any penalty or loss of benefits to which you are entitled. Participation or withdrawal at any time from the study will have no bearing on your employment position in the S.L.A.M. program with the Learning Disabilities Association of Niagara Region. If you choose to withdraw from the study, all of the data collected from you will be destroyed. This study is not dependent on your choice to participate or withdraw. Deadline for participant withdrawal will be September 30 2016.

PUBLICATION OF RESULTS

Results of this study may be published in professional journals and presented at conferences. Feedback about this study, including an executive summary, will be available by contacting the principal investigator or the principal student investigator at the above addresses. This feedback can be expected in August 2017.

CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Principal Investigator or Principal Student Investigator using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at Brock University (file 15-301). The Research Ethics Office at Brock University is available to provide answers to pertinent questions about the research participants' rights: reb@brocku.ca 905-688-5550 ext. 3035.

Thank you for your assistance in this project. Please keep a copy of this form for your records.

CONSENT FORM

Facilitator Consent

I agree to participate in this study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

Name: _____

Signature: _____

Date: _____

Appendix C. Focus Group Guiding Questions

1. How do you think this week went?

2. Did you notice any changes in the children's motivation or engagement this week?

3. How do the children perceive the S.L.A.M. program? How do you know?

4. Has the S.L.A.M. program benefitted the children? How?

5. What made the children successful or unsuccessful this week?

Appendix D. Field Journal Outline

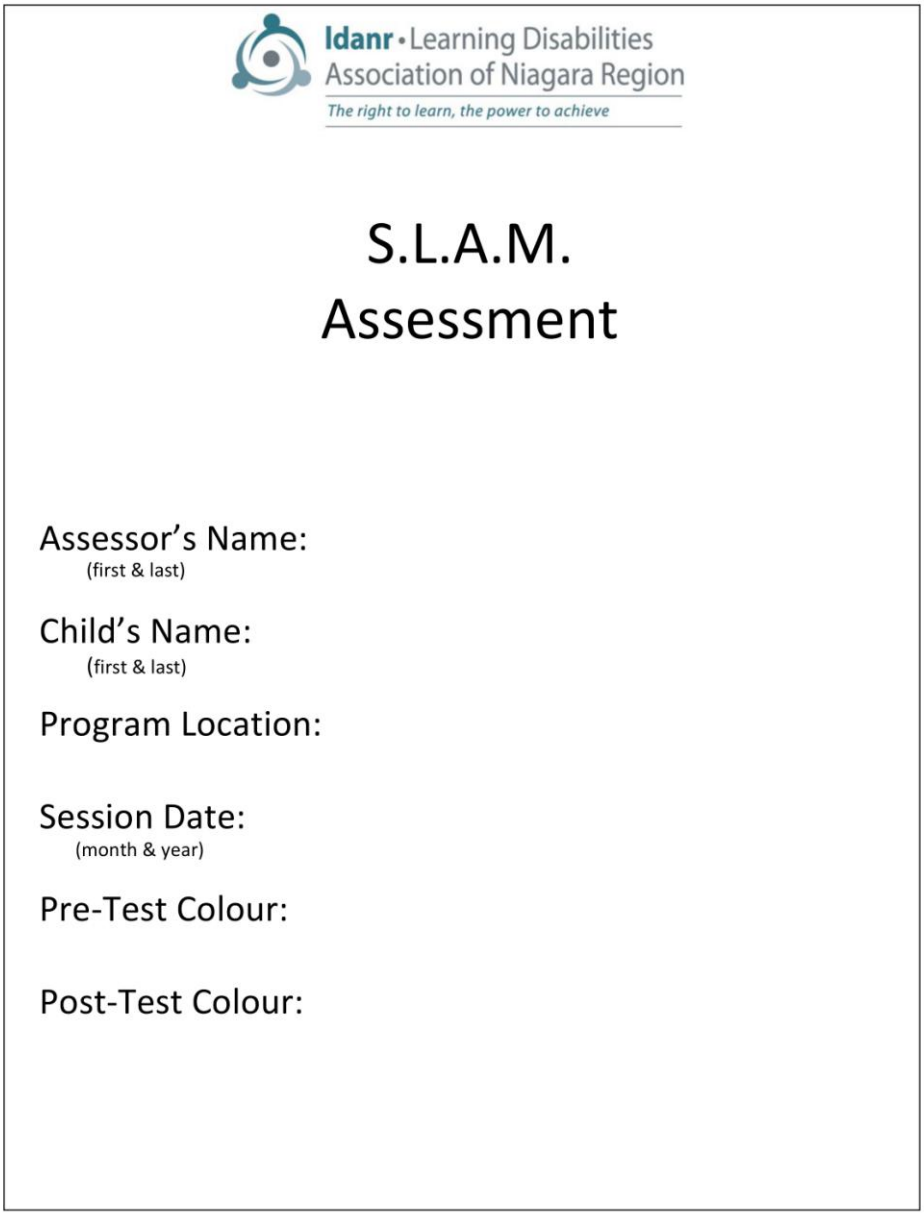
Date:

Subject Heading:

Time of Day	**Descriptive Information** *Academic*	**Reflection**	**Descriptive Information** *Non-Academic*	**Reflective Information**
Before/After Programming				
Morning				
Afternoon				
Meals/Breaks				
Other				

Notes:

Appendix E. S.L.A.M. Assessment Package



Idanr • Learning Disabilities Association of Niagara Region

The right to learn, the power to achieve

S.L.A.M. Assessment

Assessor's Name:
(first & last)

Child's Name:
(first & last)

Program Location:

Session Date:
(month & year)

Pre-Test Colour:

Post-Test Colour:

Appendix F. LDANR Phonics Assessment

Phonics Assessment

Please mark and record the pre and post-test scores in *two different colours*

		Total Score	
		PRE	POST
1. Letter Names	B A I S C D F E P T M L R Z J U H G W X Q K V Y N O r o n f l m y t v k p z i ɑ j u s h b g w d x e c q a	/26 /27	/26 /27
2. Letter Sounds	B A I S C D F E P T M L R Z J U H G W X Q K V Y N O r o n f l m y t v k p z i ɑ j u s h b g w d x e c q a	/26 /27	/26 /27
3. Consonant Sounds	m s f l r n h v w z b c d p t j g k y x q	/21	/21
4. Consonant Diagraphs	sh ch th wh ng ph tch	/7	/7
5. Consonant Blends	gr sl cr pl st bl fl tr cl dr gl sp fr scr str	/15	/15
6. Name the Vowels	ɑ e i o u	/5	/5
7. Short Vowels	fis gud hin sut jav bam nib pud nel ruft rist sant	/12	/12
8. Double Vowels	teal vie shoal seep raid ray feast fair peel moat	/10	/10
9. Final "e"	fade cube cone file lane tune joke wife	/8	/8
10. Dipthongs	maul foil cowl soy rout awl boon rook	/8	/8
11. Reversals	pal even ho saw raw ten tar won pot rats nap tops read meat lap never keep	/17	/17

2

12. Prefixes	**repan conjump inwell dellike display enstand combent ungate excry proread prehead**	**/11**	**/11**
13. Suffixes	**smalling booker floorest dation skimmance meatness charily waterful burnaten broukous**	**/10**	**/10**
14. Compound Words	**nightbank dinnerplayer basketmeat broomfeather paperjumper eatmobile spaderroom carthouse**	**/8**	**/8**
15. Silent Letters	**know knit write wrong walk comb lamb might gnaw sleigh high half**	**/12**	**/12**
16. Vowel + R	**flir worb vark mer burk**	**/5**	**/5**

Appendix G. Dolch Sight Words Assessment

Sight Word Assessment Instructions

Present the child with a copy of the ***Dolch Sight Word List*** for the level you are assessing. On the assessment mark all the correctly pronounced words with a (✔). For incorrectly pronounced words, leave the box empty. Draw a line after the child's last word.
If the child is unable to identify all sight words on one level, but you feel they may be successful in identifying sight words on the next level up, present them with the next *Dolch Sight Word List*.
(Example: child cannot finish all words on pre-primer list, but you feel they could identify words on the primer list)
Consider the child's reading level during this process also.
Add up the number of words correct and calculate the percentage correct for each assessment level the child has completed. This will make it easy to track progress using a simple progressing monitoring graph.

Sight Word Assessment

Dolch *Pre-Primer* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/40**	**/40**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
a			I			run		
and			in			said		
away			is			see		
big			it			the		
blue			jump			three		
can			little			to		
come			look			two		
down			make			up		
find			me			we		
for			my			where		
funny			not			yellow		
go			one			you		
help			play					
here			red					

Dolch *Primer* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/52**	**/52**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post		Pre	Post
all			four			out			too		
am			get			please			under		
are			good			pretty			want		
at			have			ran			was		
ate			he			ride			well		
be			into			saw			went		
black			like			say			what		
brown			must			she			white		
but			new			so			who		
came			no			soon			will		
did			now			that			with		
do			on			they			yes		
eat			our			this					

Dolch *First Grade* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/41**	**/41**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
after			has			over		
again			her			put		
an			him			round		
any			his			some		
ask			how			stop		
as			just			take		
by			know			thank		
could			let			them		
every			live			then		
fly			may			think		
from			of			walk		
give			old			were		
going			once			when		
had			open					

Dolch *Second Grade* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/46**	**/46**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
always			first			right		
around			five			use		
because			found			very		
been			gave			wash		
before			goes			which		
best			green			why		
both			Its			wish		
buy			made			work		
call			many			would		
cold			off			write		
does			or			your		
don't			pull					
fast			read					

Dolch *Third Grade* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/41**	**/41**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
about			grow			own		
better			hold			pick		
bring			hot			seven		
carry			hurt			shall		
clean			if			show		
cut			keep			six		
done			kind			small		
draw			laugh			start		
drink			light			ten		
eight			long			today		
fall			much			together		
far			myself			try		
full			never			warm		
got			only					

Dolch *Fourth Grade* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/40**	**/40**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
above			careful			fresh		
across			centre			gray		
address			chimney			heavy		
ago			cloud			meat		
air			country			neck		
airplane			desk			peas		
almost			different			people		
banana			dream			remember		
beans			dust			should		
began			edge			thought		
between			feather			through		
bottom			few			whisper		
building			field					
breakfast			finger					

Dolch *Fry* Sight Word Assessment

	Pre-Test	Post-Test
Number of Words Correct:	**/40**	**/40**
Percentage Correct:		

	Pre	Post		Pre	Post		Pre	Post
high			example			asked		
every			eye			animals		
thought			father			should		
always			write			thing		
really			called			know		
watch			people			sentence		
sometimes			number			learn		
mountain			mother			house		
important			answer			because		
together			right			years		
country			before			live		
because			another			following		
earth			different					
above			through					

Appendix H. TOWRE Phonemic Decoding Efficiency Assessment

Phonemic Decoding Efficiency Assessment Instructions

Materials: Stopwatch, *TOWRE-2 Phonemic Decoding Efficiency Form B* **Task:** Administer all items until 45 seconds have elapsed

Scoring: Record the total number of nonwords the child reads correctly in 45 seconds. If the child skips a nonword, simply count it as an error. If the child hesitates for more than 3 seconds on a nonword, mark it as incorrect and point to the next item. If the child initially pronounces the nonword incorrectly but then self-corrects to the correct pronunciation, count the item as correct. Some of the items have more than one correct pronunciation for the vowel. Score the item correct if the child gives any of the correct pronunciations. Alternative correct pronunciations are indicated with real-world examples, with the vowel in question underlined. For words with more than two syllables, alternative pronunciations are given separately for each syllable where clarification is needed. Mark all the nonwords pronounced correctly with a (✔). For nonwords pronounced incorrectly, leave the box empty. Draw a line after the child's last word.

Practice: Present the practice items from the *TOWRE-2 Phonemic Decoding Efficiency Form B* and say, "I want you to read some made-up words that are not real words. Just tell me how they sound. Let's start with this practice list. Begin at the top and read down the list as far as you can. If you come to a made-up word you cannot read, just skip it and go to the next word. Use your finger to help you keep your place if you want to." Have the child read the nonwords. If the child skips around ask him or her to read the words from top to bottom, without jumping around. If the child tries to substitute real words for nonwords, remind him or her that these are made-up words, not real words, and the goal is to try to say how they sound. If the child simply pronounces each letter sound separately say, "You are giving me the sounds each letter makes. Please try to blend the sounds together to make a made-up word."

Practice Words: ba (b<u>a</u>t, f<u>a</u>te, pizz<u>a</u>), um (<u>u</u>mpire), fos (f<u>o</u>ssil), gan (g<u>a</u>nder), rup (r<u>u</u>pture), nasp (cl<u>a</u>sp), luddy (m<u>u</u>ddy), dord (f<u>o</u>rd)

Test: Give the following instructions while holding the *Phonemic Decoding Efficiency Form B.* Say, "Okay, now you will read some longer lists of made-up words. The made-up words start out pretty easy but they get harder as you go along - read as many of them as you can until I tell you to stop. Begin here (turn over the card to show the nonword list and point to the upper left corner of the list) and read down the list (draw finger down the list) before you start on the next one. Use your finger to keep your place if you want to, and if you skip more than one word point to the word you are reading next. (Turn the paper back to the practice words). Do you understand? Okay, we'll begin as soon as I turn over the paper".

Quickly turn over the card to the list of nonwords to be administered and star timing as soon as the child says the first nonword. **After 45 seconds**, tell the child to stop and draw a line under the last nonword read. If, before the time is up the child indicates the he or she cannot read any more nonwords, ask the child to look over the whole list to see if there are any more nonwords that he or she can read. If the child then indicates that he or she can read no more nonwords, stop testing.

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Phonemic Decoding Efficiency Assessment

Stimulus	Pronunciation	Pre	Post	Stimulus	Pronunciation	Pre	Post
1. mo	(mom, mole)			34. klup	(cub)		
2. ik	(it)			35. skad	(fad)		
3. pu	(putt, mule, put)			36. keast	(beast)		
4. bi	(bike, bit)			37. churt	(hurt)		
5. ib	(it)			38. glamp	(clamp)		
6. ku	(cue, cuddle)			39. prait	(trait)		
7. eb	(ebb)			40. flact	(fact)		
8. pog	(dog)			41. throbe	(robe)		
9. dat	(fat)			42. creft	(left)		
10. mip	(tip)			43. flimp	(blimp)		
11. ral	(pal)			44. girtus	(circus)		
12. nas	(gas)			45. strale	(pale)		
13. mib	(rib)			46. debmer	deb (debt) mer (her)		
14. faw	(paw)			47. happon	hap (hat) pon (on, pun)		
15. shum	(gum)			48. framble	(scramble)		
16. bice	(mice)			49. progus	pro (prom, rope) gus (us)		
17. nade	(fade)			50. supken	sup (up) ken (pen, pun, pin)		
18. teap	(heap)			51. jeltlic	Jelt (help) lic (lick)		
19. derl	(girl)			52. tegwop	Teg (peg) wop (mop)		
20. marl	(carl)			53. slinperk	Slin (slim) perk (her)		
21. berk	(jerk)			54. plinders	Plin (tin) ders (hers)		
22. mest	(test)			55. thundelp	Thun (fun) delp (help)		
23. stree	(free)			56. bramtich	Bram (ram) tich (hitch)		
24. weaf	(leaf)			57. chimdruff	Chim (chin) druff (huff)		
25. barch	(starch)			58. darlankert	Dar (tar) lan (tan, fun) kert (her)		
26. glack	(sack)			59. stremfick	Strem (ten) fick (tick)		
27. prot	(trot)			60. morlingdon	Mor (for) ling (king) don (fun, pond)		
28. runk	(bunk)			61. revignuf	re (he, ten) vig (pig, mug) nuf (muff)		
29. loast	(toast)			62. obsorfelm	Ob (hope, hop) sor (for, her) felm (fell)		
30. mact	(fact)			63. pitocrant	Pi (pie, pit) to (toe, top, ton) crant (ant)		
31. blork	(fork)			64. glimpobot	Glim (glimpse) po (pot, note) bot (top)		
32. phet	(bet)			65. strilmolifant	Stril (shrill) mo (mow, maw) li (lick), fant (pant)		
33. wogger	(jogger)			66. bormorint	Bor (bore) mor (more) int (interest)		

Number of words read correctly: Pre-test _____ Post-test _____

If examinee finishes list before 45 seconds, note time to finish: Pre-test _____ Post-test _____

Appendix I. Fluency Assessment in WCPM

Fluency Assessment

Before the first session of Reading Rocks tutors are informed of the child's grade level, and may receive information on the child's estimated reading level. Tutors are also provided with a selection of reading passages to choose from. During training tutors will receive instruction on how to select a reading passage that best matches the child's reading ability. Reading passages should not be too difficult, or too easy for the child to read.

Once a proper reading passage has been selected it will be used to assess the child's reading fluency. Reading rate is frequently assessed during a Running Record or oral reading record. In addition to recording errors and self-corrections, the tutor uses a stopwatch or timer to time the oral reading of the passage. The following formula is to be used to calculate words correct per minute. Please be sure to fully complete the formula.

Passage title: _____

Pre-test

_____ **x 60** *(seconds per minute)* **=** _____
# of words read correctly

_____ ÷ _____ = _____ WCPM
Answer from above *# of seconds it took to read passage* *(words correct per minute)*

Post-test

_____ **x 60** *(seconds per minute)* **=** _____
# of words read correctly

_____ ÷ _____ = _____ WCPM
Answer from above *# of seconds it took to read passage* *(words correct per minute)*

FLUENCY

Pre-test _____ WCPM **Post-test _____ WCPM**

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